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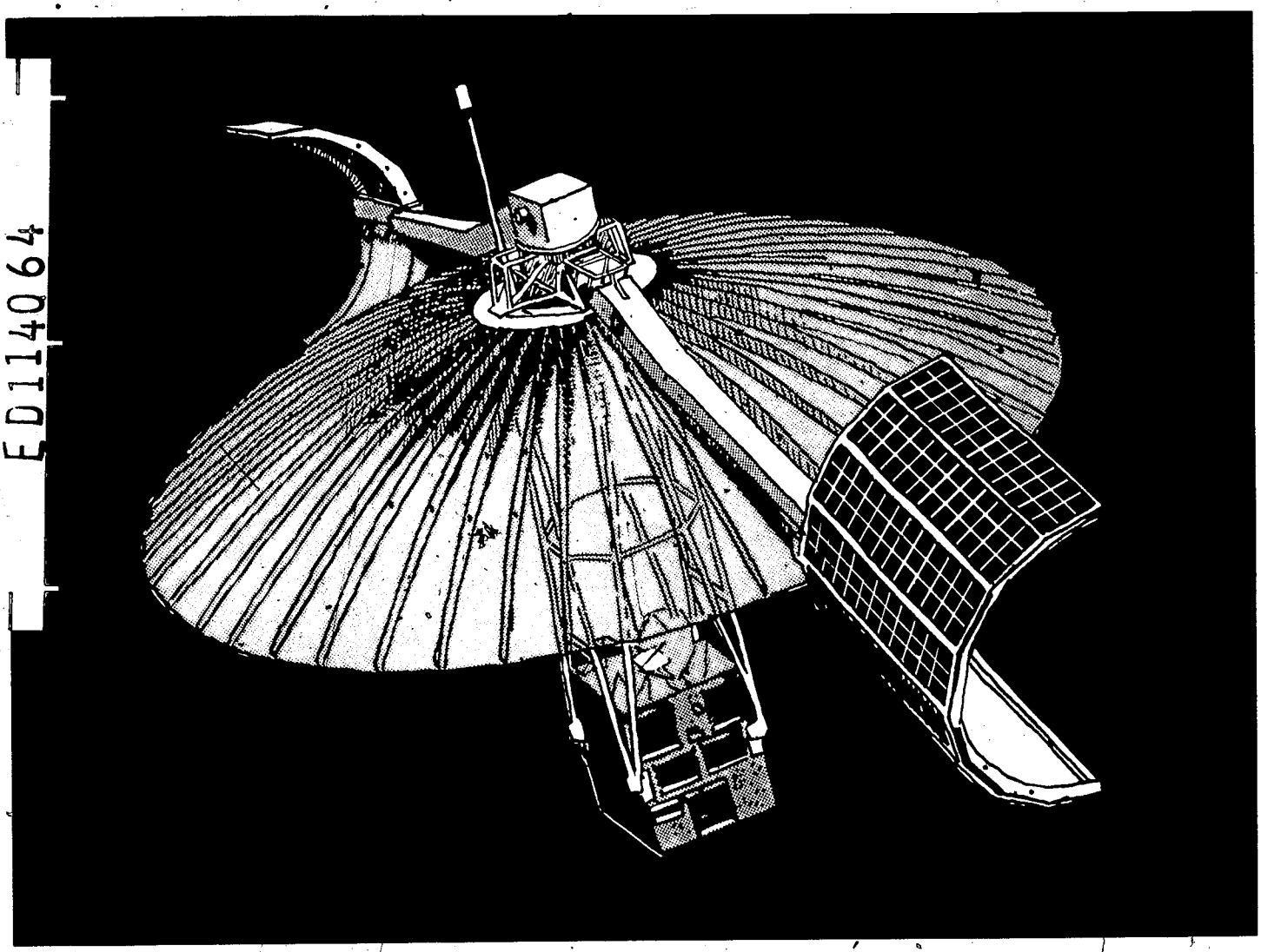
ABSTRACT

The Appalachian Education Satellite Project (AESP) is designed to apply communications satellite technology to the task of improving education in Appalachia. Data were gathered about attitudinal responses of the students, site coordinators, and college faculty consultants to the various components of the course Diagnostic and Prescriptive Reading Instruction given during June of 1973. Intended for an audience of kindergarten through third grade teachers, it consisted of 12 color videotaped lessons broadcast via satellite; 12 associated audio review segments; a live interactive seminar; and relevant readings, study activities, and testing. The report, the 6th in a 12 volume series, includes an outline of the course content and a detailed discussion of the audience reaction to the various learning activities, the delivery system, and the equipment that was used. (EMH)



Student Ratings: DPRI

appalachian education satellite project

Technical Report

number 6

USER RATINGS OF INSTRUCTIONAL ACTIVITIES:

DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION, SUMMER, 1974

Prepared by

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July, 1975

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Special recognition is extended to those on the evaluation staff who assisted with the design and implementation of the evaluation of the Diagnostic and Prescriptive Reading Instruction Course:

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The team responsible for the development and production of the instructional materials included:

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Televised portions of the course produced at the University of Kentucky Television Studio. The Producer/Director for the televised segments of the course was:

Paul LeVeque

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The Technical Report Series of the Appalachian Education Satellite Project is edited and published by the RCC Evaluation Component at the University of Kentucky, Lexington, Kentucky.

The purpose of this series is to document and disseminate information about the design, implementation, and results of the AESP experiment.

William J. Bramble and Claudine Ausness

Editors

Technical Reports #1 to 12 in this series are entitled:

AESP Data Base Information: Rationale, Data Collection Procedure, Interpretation of Results.

An Experiment in Educational Technology: An Overview of the Appalachian Education Satellite Project.

Formative Evaluation Study for AESP Diagnostic and Prescriptive Reading Courses.

The Evaluation Design: Summer Courses, 1974.

Performance of AESP Transmission/Reception Equipment (Summer and Fall, 1974).

User Ratings of Instructional Activities: Diagnostic and Prescriptive Reading Instruction, Summer, 1974.

User Ratings of Instructional Activities: Career Education in the Elementary Grades, Summer, 1974.

User Achievement: Diagnostic and Prescriptive Reading Instruction Course, Summer, 1974.

User Achievement: Career Education in the Elementary Grades, Summer, 1974.

Cost Estimation Model for Alternative Course Formats and Delivery Modes.

Summative Evaluation of Career Education in the Secondary School Course, Fall, 1974.

Summative Evaluation of Diagnostic and Prescriptive Reading Instruction K-6 Course, Spring, 1975.

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INTRODUCTION

This report describes the attitudinal responses of students, site coordinators, and college faculty consultants to the various learning activities, the delivery system, and the equipment associated with a course entitled Diagnostic and Prescriptive Reading Instruction during the summer of 1974. The course was produced by the Appalachian Education Satellite Project for television broadcast via satellite to sites in the Appalachian region.

The Appalachian Education Satellite Project (AESP) began in June, 1973, with a grant from the National Institute of Education (NIE) to the Appalachian Regional Commission (ARC). The purpose of the project was to demonstrate the feasibility of conducting graduate level courses for teachers using sophisticated National Aeronautics and Space Administration (NASA) communications satellites. The four courses developed for the project were in the areas of career education and reading instruction. All software for the courses was developed at the Resource Coordinating Center (RCC) located on the campus of the University of Kentucky in Lexington, Kentucky.

A total of four courses, two in reading and two in career education were conducted via satellite between June, 1974 and June, 1975. The course participants consisted of approximately 1200 teachers (300 per course) gathered at classroom sites at 15 different locations in the Appalachian region. The sites were located in eight different states.

from Alabama to New York, and were grouped into sets of three: a main site and two ancillary sites. Main sites were able to receive audio and video signals transmitted from the RCC via the ATS-6 satellite and could receive and send voice or teletype signals to or from the RCC and other main sites via the ATS-3 satellite. Ancillary sites could receive audio and video signals transmitted from the RCC via ATS-6 and were in telephone communication with the associated main site. Ancillary sites could not receive or transmit via ATS-3. All sites were equipped with a color television monitor and had adequate seating for 20 students. The location of each site and the broadcast "footprint" of the satellite are shown in Figure 1.

The monitoring of classroom sites and many other project related tasks conducted at the local level were the responsibility of project staff members, called site coordinators, employed at participating Regional Education Service Agencies (RESAs) affiliated with the Appalachian Regional Commission (ARC). A full description of the duties of the site coordinator can be found in AESP Technical Report #2 (Ausness and Bowling, 1974).

The Diagnostic and Prescriptive Reading Instruction (DPRI) course for K-3 teachers was conducted using the two NASA satellites during the summer of 1974. The course was designed so that high quality instruction and the opportunity for student interaction with content experts was possible, though it was not necessary for an expert in reading instruction to be on-site during class meetings. The course consisted of twelve thirty-minute, (color) videotaped lessons; twelve associated audio review segments (one for each videotaped lesson); laboratory activities and

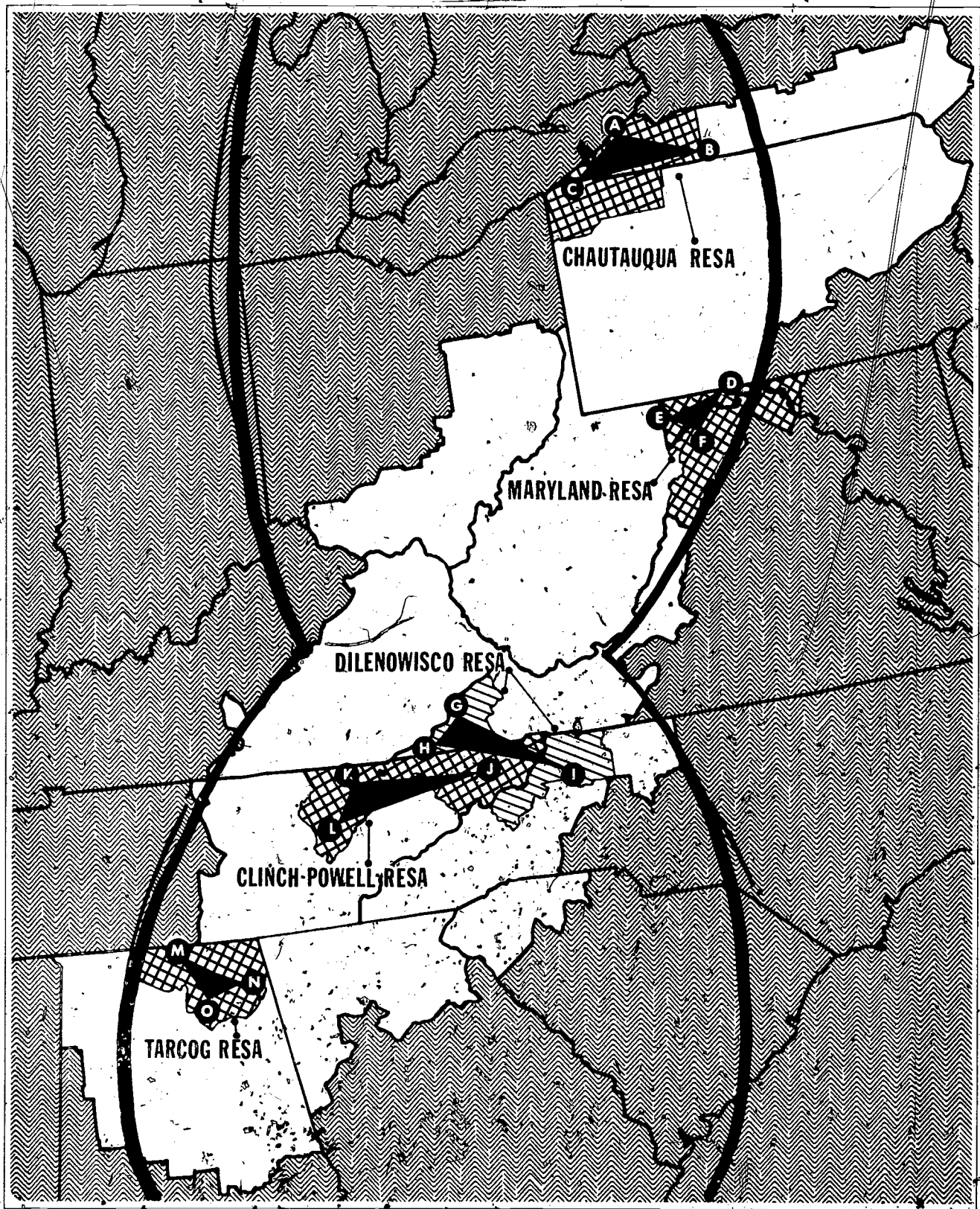

FIG. 1 MAP OF THE APPALACHIAN REGION SHOWING THE FIVE RESA CLUSTERS, RECEIVING TRIANGLES, AND APPROXIMATE SATELLITE FOOT PRINT.

A.	Fredonia, N.Y.	I.	Boone, N.C.
B.	Olean, N.Y.	J.	Johnson City, Tenn.
C.	Edinboro, Pa.	K.	LaFollette, Tenn.
D.	Cumberland, Md.	L.	Coalfield, Tenn.
E.	McHenry, Md.	M.	Huntsville, Ala.
F.	Keyser, W. Va.	N.	Rainsville, Ala.
G.	Norton, Va.	O.	Guntersville, Ala.
H.	Sticklyville, Va.		

related reading materials; unit tests; and three forty-five minute, live, interactive (color) seminar programs.

The DPRI course was developed by Dr. Lowell Eberwein, Associate Professor of Curriculum and Instruction at the University of Kentucky, and Paul LeVeque, a Producer-Director at University of Kentucky Television, in cooperation with many other professionals on the AESP staff. The purpose of the course was to teach educators to recognize and assess reading deficiencies, to use diagnostic-prescriptive information systems, to apply a large number of reading-improvement techniques, and to conduct individualized and group instruction. The course was designed to focus on the needs of Appalachian teachers, and considerable use was made of regional filming in illustrating points made in the lecture. Every effort was made, within the time frame of the production schedule, to involve teachers, administrators and other school personnel, as well as cooperating faculty at various universities and colleges in the Appalachian region, in the planning and development of the course. The goal was to make the course particularly responsive to the needs and interests of teachers in the region. Graduate credit was available to the course participants at the University of Kentucky and at a number of cooperating universities in the region.

An outline for the DPRI course is included in Appendix A, Item A. The twelve thirty-minute videotaped lessons can be described as studio-based lecture presentations by the course instructor supported by filmed materials which include teacher-student interactions and interviews with the teachers on how he/she teaches the skill illustrated on film.

Each of the twelve pretaped audio review segments consisted of four or five multiple choice questions, with four alternative answers for each question. The procedure employed in the use of the audio review was as follows: the student listened to a question and the alternative answers over the headsets and selected the alternative, either A, B, C or D, which he or she believed to be the correct response to the question posed; then the student selected the audio track, or channel, which corresponded to the selected response, where an explanation of the correctness or incorrectness of the answer was given. The questions were selected to reinforce and expand upon the material presented in the videotaped lecture. Because there were four tracks and the series of questions was presented in rigid serial order, the activity was similar to programmed instruction in that branching within questions was possible; however, branching between questions was not possible. The special equipment necessary for the four channel audio review, including the student response selectors and the electronic equipment used for automatically recording answers, is described in AESP Technical Report #5 (Bramble, Ausness, and Freeman, 1975).

The live, interactive seminars were structured in the following way. The course instructor served as moderator for a panel of one to three professionals who were experts in the focus area for that particular seminar. Questions about the subject matter of the course were transmitted from the main classroom sites to the Lexington, Kentucky studio via teletype transmission using ATS-3. Thus, a typed copy of the questions was immediately available. Questions from ancillary sites

were teletyped via telephone lines to the associated main site and were then transmitted to Lexington. To minimize redundancy questions were screened in the studio and passed to the panel moderator to be posed to the seminar guests. Each question was identified by site as it was read over the air. In two cases, pretaped segments were shown at the beginning of the seminar to better define and illustrate a particular area of focus in that seminar.

For each class session, laboratory activities were conducted after completion of the television and audio review activities. Each laboratory session was intended as a practicum, designed to expand upon principles and concepts introduced in the preceeding activities. Readings, game activities, and discussion groups were prominent techniques used during these sessions. The laboratory activities also provided instruction in the use of the various information systems made available to course participants at each of the 15 classroom sites. Appendix A, Item B contains a summary of the laboratory activities conducted for each class session.

The overriding project objective of delivering the course via satellite was achieved with minor exceptions. Originally, there were to be four seminar broadcasts. However, due to problems with the satellite uplink it was not possible to broadcast both videotapes and the live seminars on July 18. Although, the videotaped presentation scheduled for that day was broadcast on a postponed basis, it was not possible to re-schedule the seminar guests; therefore the seminar was cancelled. There were a few equipment malfunctions at the classroom sites which precluded

the viewing of some programs at several sites. However, videotapes and other materials were made available to students at these sites to make up the class activities missed.

The major equipment problem was associated with the audio review equipment, in that the equipment was delivered late. In fact, the equipment was available to students for only the latter half of the programs. During the first portion of the course, printed scripts of the audio review were substituted so that participants could complete the audio review segments. However, having previously relied on the audio reviews in print, even when the equipment was operational, many students preferred having the scripts in front of them while completing the four-channel audio review. Therefore, it should be noted that the printed scripts were substituted for the majority of the programs in completing the audio review. The transmission, reception, and general equipment successes and failures are detailed in AESP Technical Report #5 (Bramble, Ausness and Freeman, 1975).

This report discusses the attitudinal reactions of the course participants to the several instructional activities that made up the DPRI course. The perceptions of the site coordinators, and consulting faculty in regard to the effectiveness of the instructional techniques are also discussed. As a result of these discussions, recommendations for improvement of instructional techniques will be made.

METHOD

Subjects

Data were collected from three groups: 1) course participants, 2) site coordinators, and 3) consulting faculty members. A brief description of the characteristics of each of these groups is presented below.

Description of Course Participants

There were 293 participants enrolled in the DPRI course, 275 of whom completed the course. The numbers of participants at each site who enrolled and who completed the course are presented in Table 1.

The Confidential Background Questionnaire (CBQ) was completed by each course participant (a copy of this instrument may be found in AESP Technical Report #4 Bramble, et al, 1974, pp. 85). Participant characteristics, as inferred from the CBQ, are discussed in AESP Technical Report #8 (Bramble, Marion, and Ausness, 1975). To summarize the characteristics of the participants, it may be said that they were female elementary teachers, in their middle thirties, who lived in rural areas. They had an average of nine years general teaching experience and seven years experience in the teaching of reading. All of the participants held a baccalaureate degree and one-third of them were working on a master's degree. Most of them had taken undergraduate courses in reading. However, almost half had not previously taken any graduate level courses in reading.

TABLE 1

SITE LOCATION AND ENROLLMENT IN DPRI COURSE

Lead RESA	Site Locations	Number of Participants Initially Enrolled in Course	Number of Participants Completing the Course
Chautauqua Board of Cooperative Educational Services (BOCES) Box 250 Fredonia, NY 14063	Fredonia, NY	21	21
	Olean, NY	20	19
	Edinboro, NY	21	21
Clinch-Powell Educational Cooperative Harrogate, TN 37752	LaFollette, TN	20	20
	Coalfield, TN	20	19
	Johnson City, TN	18	16
DILENOWISCO Educational Cooperative 1032 Virginia Avenue Norton, VA 24273	Norton, VA	18	16
	Sticklyville, VA	19	17
	Boone, NC	20	17
Maryland RESA 110 Washington St. Cumberland, MD 21502	Cumberland, MD	21	18
	Keyser, W.VA	20	20
	McHenry, MD	20	19
TARESA (formerly TARCOG) 2603-C Leeman Ferry Road Huntsville, AL 35801	Huntsville, AL	18	17
	Guntersville, AL	20	20
	Rainsville, AL	17	15
	Total	293	275

Description of Site Coordinators

The site coordinator's duties consisted of 1) organizing the classroom activities of the students, 2) monitoring the laboratory sessions, and 3) coordinating the daily evaluation activities. The site coordinators also acted as a liaison between the students and the RCC. A full description of the duties of the site coordinator can be found in AESP Technical Report #2 (Ausness and Bowling, 1974). Descriptive characteristics of the site coordinators are summarized in Table 2.

Description of Consulting Faculty Members

The duties of the consulting faculty members consisted of 1) acting as a liaison between the RCC and cooperating universities, 2) consulting on program content, 3) acting as a consultant for RESA personnel and course participants, and 4) observing and evaluating the instructional programs. Each triangle had the services of one consulting faculty member, making a total of five for the DPRI course. The five consulting faculty members were all highly qualified to successfully function in their roles as consultants and commentators for the DPRI course. They each held a doctorate with a concentration in the field of elementary reading; they each held rank of either associate or full professor in their respective colleges; and their experience in the teaching of reading varied from five to 18 years. The universities they represented and the sites they observed are listed below:

Dr. Ruby Nell Cummings - Alabama A and M University, Huntsville, Ala.

Dr. Les Van Gilder - Appalachian State University, Boone, N.C.

TABLE 2

DESCRIPTIVE CHARACTERISTICS OF SITE COORDINATORS
(N = 15)

1. Sex: Male 7 Female 8

2. Highest Degree Completed:

Baccalaureate	5
Master's	9
Doctorate	1

3. Site Coordinators with Work Experience in:	Frequency	Median Years of Experience
Elementary teaching	10	4.5
Junior high teaching	9	3.0
Undergraduate college teaching	6	4.0
Graduate college teaching	5	2.5
Elementary school principal	0	0
Junior high principal	1	1.0
Senior high principal	1	5.0
Counselor	2	7.0

4. Courses Taken in Reading Instruction	Frequency	Median Courses Taken
Undergraduate	7	1
Graduate	7	2

5. Experience in Teaching Reading	Frequency	Median Years
	7	2

Dr. John Taylor - East Tennessee State University, LaFollette, Johnson City, Tenn.

Dr. Burl Breedlove - West Virginia University, Keyser, W.Va., McHenry, Cumberland, Md.

Dr. John E. Connelly - State University College of New York, Fredonia, N.Y.

A full description of the duties of the Consulting Faculty can be found in AESP Technical Report #2 (Ausness and Bowling, 1974).

Procedures and Instrumentation

Each class day began at 8:30 am EDT and ended at 3:30 pm EDT, with an hour provided for lunch. The participants attended class seven times and they viewed two programs and performed associated audio review and laboratory activities on most class days. On a typical class day the first activity consisted of watching one video program and completing the associated audio review. Then participants viewed the second video program and completed its associated audio review. After lunch the laboratory activities associated with each of the programs were completed. Table 3 presents a schedule of when activities were undertaken. Seminars were shown before the videotaped program on days when only one videotaped program was scheduled; when two videotaped programs were scheduled the seminar was shown prior to the laboratory activities.

Evaluation procedures concerning attitudes toward the DPRI course focused on the four major instructional activities used in the course: the video lecture; four-channel audio review; the live, interactive seminars; and laboratory activities, including information systems.

TABLE 3

PREPLANNED SCHEDULE OF LEARNING ACTIVITIES FOR DPRI COURSE

Session	Date	Video Program	Audio Review	Seminar	Laboratory Activity
1	July 11	1, 2	1, 2		1, 2
2	July 18	3, 4*	3, 4	1**	3, 4
3	July 25	5	5	2	5
4	Aug 1	6, 7	6, 7		6, 7
5	Aug 8	8, 9	8, 9	3	8, 9
6	Aug 15	10, 11	10, 11		10, 11
7	Aug 22	12	12	4	12

*Programs 3 and 4 were broadcast on July 25 due to technical problems that prevented their being broadcast on July 18.

**Seminar 1 was canceled.

Table 4 lists the instruments used for this report and gives a synopsis of the information contained in them. For more complete information concerning the evaluation instruments, the reader is referred to AESP Technical Report #4 (Bramble, et al, 1974).

The main instrument used to measure attitudes concerning the televised lectures was the Televised Lecture Questionnaire (TLQ). This instrument was administered to the students at the end of every televised lecture. The TLQ consisted of 27 five-point, Likert scale items concerning the quality of the televised lectures.

TABLE 4

INSTRUMENTS AND ACTIVITIES

Instrument	Activity Evaluated: Video	4-Channel	Laboratory (in class)	Pre-Program & Homework (out of class)	Video Seminar	Type of Instrument	Group Completing Instrument	When Completed
TLQ	X					Likert	Participants	After each Video Lesson
UFCA		X				Likert	Participants	After each Audio Review Session
LAQ			X			Likert	Participants	After each Laboratory Session
SQ					X	Likert	Participants	After each Seminar
IFQ	X	X	X	X	X	Likert & Comments	Participants	3 Times during Course
OL	X	X	X		X	Likert & Comments	Site Coordinator	After each Lesson
SR	X	X	X		X	Likert & Comments	Site Coordinator Consulting Faculty	End of Course
ISUSQ			X			Likert	Participants	End of Course
AR		X				Multiple Choice	Participants	After each Audio Review Lesson

TLQ = Televised Lecture Questionnaire
UFCA = User Four-Channel Audio Rating Form
LAQ = Laboratory Activities Questionnaire
SQ = Seminar Questionnaire
IFQ = Instructor Feedback Questionnaire
OL = Observation Log
SR = Summative Report Form
ISUSQ = Information System User Satisfaction Questionnaire
AR = Audio Review (4-Channel)

The predominant instrument used to measure attitudes toward the four-channel audio review was the User Four-Channel Audio Questionnaire (UFCA). This instrument was administered to the students at the end of every four-channel audio review session. The UFCA consisted of 17 five-point, Likert scale items rating the sound, timing, mechanics, and content of the four-channel audio review.

The major instrument used to measure attitudes concerning the live seminars was the Seminar Questionnaire (SQ). This instrument was administered to the students at the end of each seminar. The SQ consisted of 21 five-point, Likert scale items concerning the quality of the live seminar presentation.

The Laboratory Activities Questionnaire (LAQ) was administered to the students at the completion of each laboratory session. The LAQ consisted of 22 five-point, Likert scale items.

Student attitudes concerning the Information Systems were gathered on the Information System User Satisfaction Questionnaire (ISUSQ). The ISUSQ consisted of 25 five-point, Likert scale items, half of which were concerned with the Texas Computer Retrieval System and the other half with the Select-Ed Information System.

For all of the instruments used, the five-point Likert scale was arranged as follows:

Rate the statement as 5 if you strongly agree
4 if you moderately agree
3 if you feel neutral
2 if you moderately disagree
1 if you strongly disagree

Each of the five instruments (TLQ, UFCA, SQ, LAQ, and ISUSQ) was factor analyzed, and several different factor solutions were obtained for each instrument. For the factor analysis R^2s were inserted on the diagonals of the correlation matrices. Factors with eigenvalues greater than 1.00 were retained and subjected to VARIMAX rotation. From the final rotated factor loadings, items were selected to measure the scales defined by each of the factors. Items generally were retained for measurement of the factor on which they loaded most heavily (± .30 was the cut off point for inclusion on a factor). Where ambiguities occurred, based on varying factor solutions, items were assigned to factors based on the semantic content of the item. For each instrument the names of the factors and the items included in the factor are presented in Table 5. For each program, factor means were computed by averaging across the item means that composed the factor. For each instrument the results are discussed in terms of factor means, and item means for each instrument are presented in Appendix B for those who want a more detailed picture of participant reactions.

Information concerning each course activity was gathered from the participants on the Instructor Feedback Questionnaire (IFQ). This instrument was administered after the completion of each third of the course (on July 25, August 8, and August 22, 1974) in order to measure participant attitudes toward the major learning activities. The IFQ consisted of 9 five-point, Likert scale items with space provided after each question for written comments. For the ratings, the participants were asked to make their standard of reference an average, graduate education course and to follow the following guidelines:

TABLE 5

FACTORS FOR ATTITUDE INSTRUMENTS

Instrument	Factor	Items on Factor
Televised Lecture Questionnaire (TLQ)	1) Television viewing conditions	1-4
	2) Overall quality of videotape presentation	7, 8, 10-13, 15-20, 22-23, 26-27
User Four-Channel Questionnaire (UFCA)	1) Characteristics of sound	1-3
	2) Time allowed for different aspects of audio review	4-6
	3) Mechanics of presentation	7, 8, 10, 11
	4) Enjoyed using audio review equipment	9
	5) Audio review content	12-17
Laboratory Activities Questionnaire (LAQ)	1) Adequacy of time and facilities available, and appropriateness of the amount of material covered during the laboratory	10, 11, 14, 18, 19
	2) Usefulness of the laboratory as a hands-on illustration of the lecture concepts	1, 8, 9, 21
	3) Usefulness and attractiveness of the laboratory content to the participants	3-5, 13, 17, 20, 22
	4) Helpfulness of the site coordinator	6, 7

TABLE 5 -- CONTINUED

Instrument	Factor	Items on Factor
	5) Clarity of purposes and directions for doing laboratory	2, 12, 15, 16
Information Systems User Satisfaction Questionnaire (ISUSQ)	1) Value of information obtained from information systems	7-10, 13-18
	2) Information systems were useful as information sources	20-25
	3) Adequacy of explanation and ease of use of information systems	1-4, 11, 12
	4) Length of time to get information back	5, 6
Seminar Questionnaire (SQ)	1) Quality of presentation style of seminars	2, 7-12, 19, 20
	2) Value of information communicated during seminar	13-16, 8
	3) Adequate opportunity to ask questions	3, 5, 6, 15
	4) Important questions were asked by participants	4
	5) Proper time in course sequence for seminars	17
	6) Adequate pretaped segments used in seminar	1, 21

Rate the statement as 5 outstanding
4 good
3 average
2 poor
1 unacceptable

The Observation Log (OL) provided the site coordinators with the opportunity to write comments concerning the day's activities, as well as rate various aspects of the DPRI course. The rating data were incomplete and are not reported. However, the written comments from the OL are presented.

An overall evaluation of each of the four main instructional activities, the unit tests and the evaluation forms, was obtained at the conclusion of the course from the site coordinators and consulting faculty on the Summative Report Form (SR). This instrument provided them the opportunity, primarily through the writing of comments, to give a summary of what they considered to be the distinctive features of the DPRI course. It also allowed them the opportunity to make recommendations for course revision.

For each of the four main instructional activities, a selection of the written comments are included. In each case the comments were selected according to the following criteria: 1) include negative and positive comments in proportion to the total distribution of comments received, and 2) insure that all major complaints are included.

RESULTS

This section contains a summarization of the data obtained from the rating instruments. Data are presented for each of the major activities rated: pretaped video lecture, four-channel audio review, laboratory activities, and live seminars. Participant, site coordinator, and cooperating faculty reactions to the evaluation procedures and rating scales are also discussed. In the Method section it was explained that for the TLQ, UFCA, SQ, LAQ, and ISUSQ a rating of 3 was to be given when the participant felt neutral toward a statement. After carefully comparing written comments with ratings on the instruments, it was felt that with a rating of 3 the participants were actually expressing an attitude of being neither positively nor negatively impressed with the activity being rated. Thus, mean ratings of 2.5 to 3.5 are interpreted as "non impressed." The mean item range of 3.5 to 4.5 is considered to be a moderately to strongly positive attitude and 1.5 to 2.5 is considered as a strongly to moderately negative attitude toward the aspect of the learning activity being considered.

Videotaped Programs

From the factor analysis of the Televised Lecture Questionnaire (TLQ), two factors were obtained: 1) television viewing conditions (high scores indicate favorable conditions) and 2) overall quality of videotape presentation (high scores indicate high quality). The numbers of the items that make up each factor, as well as the factor means for

each program, are presented in Table 6. If the reader wishes to refer to the participants' ratings of individual items, item means and overall means are presented in Appendix B, Table A.

On the first factor, it may be concluded that the overall television viewing conditions were favorable since all program means from Table 6 were above or near a four rating. Only programs five and six have means that are below four.

Because the second factor was the student reaction to the overall quality of the programs, it was decided to rank-order the programs according to their factor means. The rankings are presented in Table 7.

Programs two, ten, and twelve are significantly above the grand mean, and programs five and six are significantly below. Because the program means range from 4.01 to 4.54, it may be concluded that the overall quality of the video presentations was viewed by the participants as being moderately high to high.

Item two on the Instructor Feedback Questionnaire (IFQ) asked the participants to compare the video programs with other live lectures the participants had seen (the means for the IFQ items are presented in Appendix B, Table B). The IFQ was administered three times during the course, and the means for item two were 3.47, 3.86, and 3.97. These ratings are for programs one through five, six through nine, and ten through twelve, respectively. The first mean of 3.47 represents a slightly positive overall rating of the video programs as compared to a live lecture. The second mean (3.86) indicates a more positive reaction, and the third mean of 3.97 is significantly higher ($\alpha = .10$) than the first,

TABLE 6

FACTOR MEANS FOR TELEVISED LECTURE QUESTIONNAIRE: DPRI COURSE

Factor	Items on Factor	Pretaped Video Program											
		1	2	3	4	5	6	7	8	9	10	11	12
1) Television viewing conditions	1-4	4.03	4.05	4.10	4.02	3.91	3.87	4.09	4.55	4.60	4.35	4.29	4.57
2) Overall quality of videotape presentation	7,8 10-13 15-20 22-23 26-27	4.25	4.51	4.25	4.37	4.01	4.05	4.34	4.39	4.18	4.54	4.42	4.45

TABLE 7

RANKING OF PROGRAMS BY FACTOR MEANS ON TELEVISED LECTURE QUESTIONNAIRE DPRI COURSE

Rank	Mean	Program Title	Program Number
1	4.54	Vocabulary	10*
2	4.51	Informal Reading Test	2*
3	4.45	The Total Reading Program	12*
4	4.42	Comprehension	11
5	4.39	Reading Readiness and Beginning Reading	8
6	4.37	Word Recognition Tests	4
7	4.34	DPRI Management	7
8.5	4.25	DPRI Introduction	1
8.5	4.25	Standardized Tests	3
10	4.18	Word Recognition	9
11	4.05	Prescriptive Instructional Systems	6*
12	4.01	Miscue Analysis	5*

*Significantly different from grand mean (GM = 4.31) at .05 level

mean. The twelve programs can be divided into three categories based on content. Programs one through five dealt with the diagnostic techniques used in reading instruction. Program six and seven dealt with information systems and classroom management techniques. Program eight through twelve dealt with techniques of teaching reading skills. It appears that the participants were more attracted to programs that illustrated classroom practices than programs that dealth with diagnosis, information systems, and classroom management.

Many comments made by participants on item 2 of the IFQ reflect these sentiments.* It seems that participants really preferred the televised lecture over the classroom lecture for those programs dealing with classroom teaching techniques.

> "It makes the lecture more interesting and exciting. By using TV you can actually see things instead of just talking."

In examining participants' preferences for a televised presentation of only a portion of programs, one must look at program content versus methods of TV instruction. For example, pertinent to this discussion is the fact that those programs rated highest were also those that are best presented visually; i.e., the subject matter lends itself most easily to TV instruction.

> "Precise, to the point, and actually seeing the different techniques in use was extremely helpful."

Not only was the content of programs 8-12 easily adpatable to instructional TV, but the program content was less abstract and more familiar to the participants than is the content of a program which deals with the explanation of the Reading Miscue Inventory. Therefore, when content was relatively simple and familiar to students, they seemed to favor the televised lecture format.

> "I really enjoyed the TV lecture. The teletype helped to answer any questions and get answers right away."

*(These comments were selected according to the criteria listed in the Method section, and were chosen from all three administrations of the IFQ.)

The negative comments made by participants referred mainly to those programs which were more difficult to visually illustrate in an interesting manner (i.e., classroom film clips, etc.). For example the programs which dealt with diagnostic techniques relied largely upon on-camera lecture by the instructor, and relevant charts and diagrams. These programs necessarily came across as less interesting than others. Also, the content of these programs was more technical in nature and had to be dealt with, for the most part, in generalities. The limitations of TV instruction and the time constraint both affected the depth of content that could be covered in each program.

> "I felt the lectures were too general if the course participant is not already familiar with DPRI procedures, especially on the Reading Miscue Inventory."

These negative comments were transferred or extended to reflect on the students' feelings toward the instructor. For the more technical programs, students indicated less enthusiasm in comparison to traditional, live lecture settings.

> "The TV program was related to the subject but wasn't technical enough for the information we had to learn from our readings."

> "I had rather have a good professor lecture in person than a TV program."

It may be concluded from the preceding comments that the actual program content was important in determining whether or not students preferred the videotaped programs or a live lecture.

Comments by the site coordinators, from the Summative Report Form (SR), are overall very favorable and express many of the same concerns as the participants' comments. Regarding the trend of program preference discussed earlier, site coordinators responded as follows:

"Reading started off with a good acceptance but ended with a much greater enthusiasm. The class applauded some of the lessons beginning with lesson 6. Participants were especially appreciative of the practical suggestions and help given beginning with lesson 6."

"The programs got better as the summer progressed. You might need to add another program on the Reading Miscue Inventory."

Further comments from site coordinators support the previous generalization regarding the differences in preference for certain programs because of differences in the nature of program content.

"The lecture format was too dry. That portion of the program dealing with visitations to schools for working models of DPRI approaches was much more favorably received."

"Less talking face; hold graphics on the screen longer and have them reproduced in ancillary materials for reference. Have more demonstration of real situations for illustrating methods and techniques. In general, the materials were excellent."

"These programs were exceptional and the only suggestion would be to cover less material and in-depth rather than skimming so many areas."

The most consistent unfavorable comments made by site coordinators concerned technical problems with the reception of video programs at some classroom sites.

"Throughout the course we had extreme audio difficulties. In spite of these, materials and concepts were well received by a very enthusiastic student group."

Voice was of poor quality (technical) which made it difficult for the class to understand lecture. Color quality was inconsistent."

The consulting faculty members were very positive in their overall ratings of the televised programs. They were asked to rate the programs on a 5-point scale (5 - excellent to 1 - unacceptable). Their average rating was 4.75. Their comments generally related to the pretaped programs within the framework of the complete course.

"Lowell's sincerety and knowledge came through very well. Wow! Outstanding! Relevant instructional and innovative reading techniques and materials presented by a talented crew and instructor. Demonstration classroom filming and editing was outstanding. The entire series of programs, course assignments, pre-program preparations ancillary activities, follow-up activities with students, and live seminars have provided our RESA teachers with the ways and means of implementing a practical diagnostic and prescriptive reading approach in their classrooms."

"First 2 to 3 programs were not received; that is, the quality of reception was poor. After we started receiving the programs, they were excellent."

Most consulting faculty members, however, observed the programs on an irregular basis, as exemplified by the following comments:

"Please note--I was unable to see the reading seminars (except the playback of the one in which I participated). However, I saw the majority of televised lectures and would rate as above (rated this category 5, the highest possible) for the lectures."

"The lectures that I observed were usually excellent and the follow-up activities were related to the material discussed in the telecast."

Consulting faculty members' comments about program content referred mainly to the role of the site coordinator. Their comments did not indicate dissatisfaction with program content; rather, it was felt that the site coordinator should be used more as an on-site instructor (though this would largely defeat the purpose of the experiment). The consulting faculty suggested that site coordinators should have adequate background in the subject area to fill any void left by the program.

"I would recommend that site coordinators be (used) more than they were during this program. I would recommend that they be people with a background in the area being taught and that they be competent to extend and expand ideas presented as their groups need such."

"The Reading Miscue Inventory was presented well; however, more time might have been spent in its utilization."

A final comment received was:

"Applicable to all activities, there need to be more opportunities for interaction among the groups at sites and interaction with those in the studio."

Four-Channel Audio Review

The factor analysis of the User Four-Channel Audio Questionnaire (UFCA) identified five factors: 1) characteristics of sound (high rating indicates adequate sound), 2) time allowed for different aspects of audio review: e.g., putting on earphones, answering questions (high rating indicates sufficient time), 3) meachanics of presentation: e.g., speaker spoke clearly (high rating is adequate), 4) enjoyed using audio review equipment (high rating indicates enjoyed), and 5) audio review content (high rating is adequate). The factor means are presented in Table 8; for a more complete picture the reader may refer to the item means presented in Appendix B, Table C.

Prior to program six the audio review equipment was either not installed or not operating well enough for data to be collected. At some sites the participants heard crosstalk, i.e., more than one channel at the same time and sometimes the participants did not hear the channel they selected [see AESP Technical Report #5 (Bramble, Ausness, and Freeman, 1975) for a detailed discussion of the technical problems]. Only for the fifth factor (content) could data be collected for all programs. This was possible because the participants were supplied with written scripts for use when the equipment was not operational.

TABLE 8

FACTOR MEANS ON USER FOUR CHANNEL AUDIO QUESTIONNAIRE

Factor	Items on Factor	Audio Review											
		1	2	3	4	5	6	7	8	9	10	11	12
1) Characteristics of sound	1-3	Four-channel audio					3.60	3.95	3.98	4.08	4.43	4.23	4.47
2) Time allowed for different aspects of audio review	4-6	review equipment					4.36	4.46	4.64	4.61	4.72	4.71	4.81
3) Mechanics of presentation	7, 8 10, 11	either not installed or operating					4.07	4.23	4.66	4.57	4.67	4.64	4.70
4) Enjoyed using audio review equipment	9	at an intermittent level					3.56	3.53	3.98	3.95	4.06	3.78	4.03
5) Audio review content*	12-17	3.96	4.18	4.22	4.55	4.38	4.05	4.17	4.36	4.41	4.33	4.44	4.32

*Students read scripts of four-channel audio review if the equipment was not operational, thus they could always rate items on UFCA pertaining to content.

When the audio equipment was operational, generally from program six on, the participant ratings (Table 8) ranged from moderately high to high for factors one through four. Exceptions to this are found for program six on factor one and programs six and seven on factor four, where slightly positive ratings around 3.5 were obtained. Moderately high to high ratings were obtained for factor five (content).

Item three on the IFQ asked the participants to rate the audio review through comparison with "class quizzes followed by class disscussions of the answers" (Appendix B, Table B). The means for the three administrations of this item are 3.60, 3.57, and 3.53. The first mean (3.60) is based on the participants' reactions to reading the scripts; the last two means (3.57 and 3.53) are mainly based on the participants' reactions to actually using the four-channel equipment. However, several sites were unable to use the audio review equipment for some of the later programs (6-12), and their content ratings would be based on the written scripts in those instances. It may be concluded from these slightly positive ratings that the participants were not nearly as impressed with the audio review (compared to class quizzes and subsequent discussions) as they were with the videotaped programs.

Participants' responses to the questions asked during the audio review were to be recorded two ways: 1) the responses were to be recorded on Op-scan sheets by the participants, and 2) the alternatives selected via the response buttons were to be automatically recorded on magnetic tape. The equipment that was to automatically record and decode the responses was engineered incorrectly and the data were lost. Therefore, the only available data consists of participants' responses from

the Op-scan sheets. These are summarized in Table 9.

The proportion of participants that selected the correct alternative ranged generally from .95 to 1.00. Exceptions to these are found on programs two, three, and five where the proportions for some items range from .71 to .85. It may be concluded that the questions asked were extremely easy to answer. Thus the items served mostly to reinforce information already known by the participants.

Participants' reactions to the audio review segments varied. The selection of comments listed below [taken from the IFQ, item 3, (Appendix B, Table B)], indicates that some participants valued the audio review and the actual procedure used in the audio review as an aid and a reinforcement for learning.

> "Instant discussions of answers were good reinforcers as learning aids."
>
> "This gives me a chance to test myself and gives me a study sheet."
>
> "I like this approach. It gives you an idea of exactly what you have done and whether it was right or wrong and why."
>
> "You get a response right away and not in a couple of days with no explanation."

The audio review questions were intended to convert concepts presented in the video into practical or situational-type problems or questions which might affect the participant as a teacher of reading. It may have been the use of practical, rather than very technical, questions that resulted in the following comments by participants:

> "Answers were too easy. You could choose correct ones before questions were given."
>
> "Answers seemed obvious before hearing the questions."

TABLE 9

AUDIO REVIEW QUESTIONS
DPRI COURSE

Program	Question	Proportion Selecting Alternative				Number of Students
		1	2	3	4	
1	1	.00	1.00*	.00	.00	283
	2	.00	.01	.98*	.00	283
	3	.00	.98*	.01	.01	283
	4	.00	.00	.99*	.00	282
	5	.00	.00	1.00*	.00	281
2	1	.11	.18	.71*	.00	273
	2	.00	.84*	.11	.05	273
	3	.01	.00	.00	.98*	272
	4	.00	.00	.87*	.12	272
	5	.02	.00	.98*	.00	254
3	1	.01	.11	.04	.84*	264
	2	.00	.01	.99*	.00	264
	3	.03	.01	.05	.92*	264
	4	.00	.85*	.09	.06	264
	5	.00	.01	.01	.98*	241
4	1	.01	.01	.01	.98*	259
	2	.00	.00	.99*	.00	259
	3	.00	.02	.00	.98*	259
	4	.02	.97*	.00	.00	259
5	1	.05	.91*	.01	.03	180
	2	.22	.01	.77*	.00	180
	3	.01	.03	.03	.94*	180
	4	.00	.83*	.00	.17	180
6	1	.00	.02	.97*	.01	268
	2	.00	.01	.06	.93*	267
	3	.95*	.00	.01	.04	268
	4	.99*	.00	.00	.00	266

*Correct answer

TABLE 9 -- CONTINUED

Program	Question	Proportion Selecting Alternative				Number of Students
		1	2	3	4	
7	1	.01	.02	.96*	.00	270
	2	.01	.02	.96*	.02	270
	3	.00	.99*	.00	.00	270
	4	.00	.99*	.00	.00	270
8	1	.00	.96*	.03	.01	257
	2	.00	.99*	.00	.00	257
	3	.96*	.00	.03	.01	257
	4	.00	.00	.00	1.00*	257
9	1	.00	.92*	.00	.08	262
	2	.01	.97*	.01	.01	261
	3	.01	.99*	.00	.00	262
	4	.97*	.01	.00	.02	261
10	1	.00	.00	1.00*	.00	265
	2	.04	.00	.01	.95*	265
	3	.96*	.04	.00	.00	265
	4	.00	.99*	.01	.00	265
11	1	.00	.00	1.00*	.00	173
	2	.04	.00	.01	.95*	173
	3	.96*	.04	.00	.00	173
	4	.00	.99*	.01	.00	173
12	1	.00	.99*	.00	.00	263
	2	.00	.00	.00	.99*	263
	3	.00	.00	.02	.98*	263
	4	.00	1.00*	.00	.00	263

*Correct answer

"Choices of answers were poorly written."

"The questions are good, but the use of the expensive equipment is a waste of time and money."

Other participants compared the four-channel audio review with learning activities employed in regular college-level courses. Some comments were:

"A waste of time--most college courses are not quiz-oriented. Could answer without even hearing question."

"The quiz seemed very elementary after doing the pre-program work and seeing the lecture."

A final comment reflected the difficulties experienced with the audio review equipment:

"To date, we have not had four-channel audio. Not connected. Used written form which was adequate."

The bulk of site coordinator comments (from the SR) regarding the audio review dealt with equipment problems and dissatisfaction with the nature of the audio review questions. Some of these comments are listed below.

"We were only able to have four-channel three times. The students thoroughly enjoyed it. Wish we could have gotten our equipment earlier."

"Students responded well to four-channel audio all the way through the course."

"After the cross-talk was corrected, it was good. Class felt there was too much time to make decision. Also no need for preliminary instruction each time."

"Here the format and timing was a problem. Timing was too slow paced. Sometimes questions were too obvious."

"Teachers were upset because the questions were too simple. They also disliked the equipment and failed to see the purpose of the audio review."

One site coordinator felt that the audio review would have been more effective if more questions were used:

> "I think you may need to go to shorter questions and answers. Why not have 15 questions instead of four?"

The consulting faculty members were fairly positive in their overall ratings of the audio review. They were asked to rate the programs on a 5-point scale (5 - excellent to 1 - unacceptable). Their average rating was 4.05. Their comments, listed below, reflect generally the same sentiments as those expressed on the preceding pages.

> "This segment seemed to cause the most problems in the programs which I observed. Students did not seem to respond especially well to this."

> "Again, after we received them regularly, they were very good."

> "One minute was not needed to make response. You might add three more questions. The written scripts 'saved' the four-channel audio component for programs 1-6. Alice should be congratulated on a fine job-'those who have to construct test items know what a difficult task it is.' For example, on July 11, 1974, the students reading the four-channel audio script were all finished while the audio tape was beginning beginning item #3. On program 11, five students were on question #3 when the 15-second reminder was given for question #1. Note: Four-channel audio test items might be numbered the same as program materials, i.e., FCA 2:1, FCA 2:2, etc."

> "Need for a better coding system to match answer sheets with evaluation. Also, too much time lapses for correct response given by the narrator."

In analyzing the preceding comments, one should realize that the equipment malfunction during the first portion of the course and the difficulties experienced with the equipment once it was operational, may have colored both the participants' and the site coordinators' views about the importance of the audio review as a learning activity. The number

of negative comments received reflected a substantial level of dissatisfaction with the audio review questions, answers and equipment. However, it should be remembered that the overall ratings of the audio review activities (from the IFQ) were positive.

Laboratory and Other Activities

The factor analysis of the Laboratory Activities Questionnaire (LAQ) indicated five groupings of items that were descriptive of participants' reactions to the laboratory activities. The five factors were: 1) adequacy of time and facilities and appropriateness of amount of material covered during the laboratory (high rating indicates adequate and appropriate); 2) usefulness of laboratory as a hands-on illustration of lecture concepts (high rating is illustrative); 3) usefulness and attractiveness of the laboratory content to the participants (high rating is useful and attractive content); 4) helpfulness of the site coordinator (high rating is helpful); and 5) clarity of purpose and directions for performing the laboratory (high rating indicates clarity of purpose and directions). The factor means are presented in Table 10 and the item means are presented in Appendix B, Table D.

To aid in interpreting the LAQ data, each program was ranked from high to low on each factor. The rankings are presented in Table 11. To see if there was any consistency in the program rankings across factors, Kendall's coefficient of concordance was computed (Hayes & Winkler, 1971, pp. 849-852). The value obtained for W was .339. This value indicates a rather low degree of similarity in the ranking across factors.

TABLE 10

FACTOR MEANS ON LABORATORY ACTIVITIES QUESTIONNAIRE

Factor	Items on Factor	Laboratory											
		1	2	3	4	5	6	7	8	9	10	11	12
1) Adequacy of time and facilities available, and appropriateness of amount of material covered during laboratory	10, 11, 14, 18	3.67	3.52	3.84	3.81	3.15	3.75	3.80	4.16	4.06	3.98	4.09	4.21
2) Usefulness of the laboratory as a hands-on illustration of lecture concepts	1, 8, 9 21	3.92	3.89	3.49	3.54	3.72	3.98	3.98	3.97	4.03	4.15	4.09	3.95
3) Usefulness and attractiveness of the laboratory content to the participants	3-5, 13, 17, 20, 22	4.05	3.91	4.13	3.97	3.49	3.49	3.80	4.09	4.15	3.99	3.96	3.75
4) Helpfulness of the site coordinator	6, 7	4.05	3.78	4.10	4.15	4.15	3.96	4.06	4.43	4.43	4.43	4.28	4.42
5) Clarity of purpose and directions for doing laboratory	2, 12, 15 16	3.66	3.55	3.81	3.70	3.58	3.65	3.67	4.14	4.09	4.02	3.98	4.25

For each factor, program means that were significantly different at the .05 level from the grand factor mean are marked with an asterisk (*) in Table 11. The laboratory activities that were rated highest on one or more factors were 1, 3, 8, 9, 10, 11, and 12. Of these only 8, 9, 10, 11, and 12 appear high on more than one factor. The laboratory activities that were rated lowest on one or more factors were 2, 3, 4, 5, 6, and 12. Of these only 2, 5, and 6 appear low on more than one factor. Generally, it may be concluded that the earlier laboratory activities (1 through 6) were viewed less positively than the later laboratory activities (7 through 12). This is roughly parallel to the results from the TLQ. It appears that the best rated TV programs are associated with the best rated laboratory sessions (see Table 7 and Table 11 for comparison). Also, it seems that the participants enjoyed the laboratories that dealt with teaching methods more than those that dealt with diagnostic techniques.

Item four on the IFQ asked the participants to compare the laboratory activities with laboratory experiences they had in other college courses. The means for the three administrations of this item are 3.81, 3.70, and 3.80. These ratings may be classified as moderately positive and indicate that the participants felt that the DPRI laboratory activities could be favorably compared to other courses.

Completion of the laboratory activities required: 1) the availability of computer-assisted information retrieval systems, and 2) the use of a reference library at each site which contained all materials referred to in the laboratory activities.

TABLE 11

RANKING OF FACTOR MEANS FOR LABORATORY ACTIVITIES QUESTIONNAIRE

Ranking	Factor 1		Factor 2		Factor 3		Factor 4		Factor 5	
	Program	Mean	Program	Mean	Program	Mean	Program	Mean	Program	Mean
1	12	4.21*	10	4.15*	9	4.15*	8	4.43*	12	4.25*
2	8	4.16*	11	4.09*	3	4.13*	9	4.43*	8	4.14*
3	11	4.09*	9	4.03*	8	4.09*	10	4.43*	9	4.09
4	9	4.06*	6	3.98	1	4.05*	12	4.42*	10	4.02
5	10	3.98	7	3.98	10	3.99	11	4.28	11	3.98
6	3	3.84	8	3.97	4	3.97	4	4.15	3	3.81
7	4	3.81	12	3.95	11	3.96	5	4.15	4	3.70*
8	7	3.80	1	3.92	2	3.91	3	4.10	7	3.67*
9	6	3.75	2	3.89	7	3.80	7	4.06	1	3.66*
10	1	3.67	5	3.72*	12	3.75*	1	4.05	6	3.65*
11	2	3.52*	4	3.54*	5	3.49*	6	3.96*	5	3.58*
12	5	3.15*	3	3.49*	6	3.49*	2	3.78*	2	3.55*

*Significantly different from grand mean for factor at .05 level

There were two information retrieval systems available to the participants, Select-Ed and the Texas Retrieval System. AESP Technical Report #2 (Ausness and Bowling, 1974, pp. 20-22) gives a description of each system employed and states how each was used by the participants. Briefly, though, to use either information system available, participants requested information searches by mailing a request form to the University of Kentucky. The search was run there and the information returned by mail.

The reference library contained all materials, books and test instruments necessary for the participants to complete the laboratory activities. It also contained supplementary materials that expanded upon the basic program.

The Information Systems User Satisfaction Questionnaire (ISUSQ) was factor analyzed and four factors were obtained. The factors are: 1) value of information obtained from information systems (high rating indicates high value); 2) information systems were useful as information sources (high rating is useful); 3) adequacy of explanation and ease of use of information systems (high rating is adequate); and 4) turn around time in receiving information (high rating indicates acceptable length of time). The factor means are presented in Table 12 and the item means are presented in Appendix B, Table E. The participants' ratings on factors two and three were moderately positive. Thus they felt that the information systems were useful as sources of information, that the procedures for use were explained adequately and that they were easy to use. Factor one has a mean of 3.31, and it appears that the participants

TABLE 12

FACTOR MEANS FOR INFORMATION SYSTEMS USER SATISFACTION QUESTIONNAIRE (N=236)

Factor	Items on Factor	Factor Mean
1) Value of information obtained from information systems	7-10, 13-18	3.31
2) Information systems were useful as information sources	20-25	4.08
3) Adequacy of explanation and ease of use of information systems	1-4, 11, 12	3.89
4) Length of time to get information back	5, 6	3.05

were unimpressed with the information they got from the information systems. Finally, on factor four the mean is 3.05, and apparently the participants were not impressed with the speed of receiving information back from the information systems.

Item six on the IFQ asked the participants to compare the information systems to materials supplied in other courses. The means for the three administrations are all towards the positive (3.81, 3.91, 3.75) and indicate that the participants were favorably disposed towards the information systems.

Item five on the IFQ asked the participants to compare the on-site reference materials with materials provided in other courses. The means for this item are very positive (4.10, 4.00, 4.08) and indicate that the participants were pleased with the on-site materials provided.

Two final aspects of the course related to the laboratory activities were rated by the participants. These were pre-program preparation compared to work assigned in other courses and homework assignments compared to other classes. The pre-program preparations were usually readings to be completed prior to class. Participants reactions to this were measured by item one on the IFQ. The means (3.72, 3.58, 3.79) indicate a low positive reaction to the pre-program preparation. Item 8 on the IFQ dealt with homework. The means for this item (3.61, 3.58, 3.76) tend toward a mildly positive reaction.

Participants were asked to comment on the five items on the IFQ which dealt with the laboratory and associated activities. In general, students seemed to be most favorably impressed with the following:

1) opportunities for small group discussions in class;
2) access to reference and resource materials via the on-site reference library; and
3) the organization and completeness of the laboratory materials.

Listed below is a selection of comments made by the participants for each of the five items.

Item 4 - Laboratory Activities

> "The last sessions seemed like busy work when so much material is available for readiness, etc. Discussing them in the laboratory would be sufficient."
>
> "Very good - unique opportunity with small class for discussion of problems and solutions. Received new ideas and materials."
>
> "Instructions not always clear! No one to clarify them."

"Sometimes redundant. Sequentially - ill-timed."

"Interaction with other students good."

Item 6 - Information Retrieval Systems

"We never got feedback from the retrieval system. It's good to know about it, but it wasn't any practical use to us."

"Did not receive complete set of materials. Materials available were excellent."

Item 5 - On-site Reference Library

"Having all materials available (in reference library) was very helpful. Many times reserve materials are not obtainable."

"For one lesson we were not equipped with the material. Receiving material to read at home has helped since it is so hard to get to a university to do (library) research."

"The materials were always here. There is no waiting in line to get one certain book then finding someone has torn out the article you need."

"More materials than I can use profitably."

"I think I would have circled 5 on this, but I didn't get much of a chance to look at the materials there was so much going on all the time. Too much work both in class and out. There was not time to do any in-depth personal exploration."

"You don't have to wait and end up doing it only when you can get the material."

"Have liked checking materials out and using them."

Item 1 - Pre-Program Preparation

"The materials are meeting the needs of the students better than any graduate course I have taken."

"Work required is too extensive for one class day's preparation. However, the materials are well-organized and thorough."

"In some instances there is too much when pre-program preparation is combined with follow-up from previous programs."

"I have put more time in preparation for this course just doing the essentials, therefore, I have received more."

"Too much to cover adequately. You end up skimming much of the material."

"It prepared me well for the classes though it was too much work."

Item 8 - Homework Assignments

"Often unclear and too much to cover adequately. No one to answer questions."

"You got to put to use what you acquired in class."

"Good - BUT - too long - detailed."

"Homework assignments generally adequate preparation."

"Too much with meager guidance."

Comments by the site coordinators, from the Summative Report Form (SR), are overall very favorable and express many of the same concerns as the participants' comments. The site coordinators felt that the content of the activities and materials was excellent, but that there was too much outside work required of participants. Some comments received are listed below.

"Generally, the activities were very meaningful but on occasion there was not enough time to complete everything."

"Students seemed to get a lot out of lab work. They did complain about a lot of outside reading necessary for the course."

"There appeared to be an imbalance in the amount of outside work required and the time allotted. The participants did, however, indicate that it was valuable work. Some directions were weak and unclear."

"Lab activities were a great experience for the students. However, the common complaint was the weight of assignments. The series of assignments dealing with testing a student seemed to drag down a number of the teachers."

"Students definitely felt activities were worthwhile and important to learning process."

"They were unanimous--the practice sessions in administering the standardized tests were very helpful. Also, in sharing materials for completing lab activities we divided into small groups, studied separate materials, and then reported to the group. As a result, all related reading materials were used."

The consulting faculty members were very positive in their overall ratings of the laboratory and related activities. They were asked to rate the programs on a 5-point scale (5 - excellent to 1 - unacceptable). Their average rating was 4.60. Their comments generally emphasized the course workload mentioned earlier by the participants and site coordinators.

"Excellent and related to other activities."

"Only complaint was 'too much' from students. Everything was meaningful and purposeful, therefore, worthwhile."

"All were meaningful to students and consulting faculty. The well-prepared laboratory activities and information systems provided for the immediate needs of the neophyte classroom teacher and the experienced reading specialist..."

"Actually too much laboratory work for the course. However, a quick student could pace herself. Suggestion: have more time slots to have group interchange of ideas, comments, etc. Perhaps involving more on-campus (or local) reading people."

An examination of the comments from all three groups--participants, site coordinators and consulting faculty--indicates that, although the course organization and content were referred to as excellent, the heavy workload, both in and out of class, overwhelmed some of the participants. Together with the imposed time constraints during class sessions, this could have made some lab activitites seem less meaningful than they might have seemed otherwise.

Televised Live, Interactive Seminars

The original plan for the DPRI course called for four seminars, but due to a transmission failure the first seminar was not broadcast. The Seminar Questionnaire (SQ) was factor analyzed and six factors were obtained. The factor means are presented in Table 13 and the item means are presented in Appendix B, Table F.

TABLE 13

FACTOR MEANS ON SEMINAR QUESTIONNAIRE
DPRI COURSE

Factor	Items on Factor	Seminar		
		1	2	3
1) Quality of presentation style of seminar	2, 7-12, 19, 20	3.76	3.90	4.22
2) Value of information communicated during seminar	13-16, 8	3.03	2.76	3.11
3) Adequate opportunity to ask questions	3, 5, 6, 15	4.04	4.09	4.21
4) Important questions were asked by participants	4	3.07	3.22	3.35
5) Proper time in course sequence for seminar	17	2.85	2.95	3.15
6) Adequate pretaped segments used in seminar	1, 21	2.86	3.83	*

*None used in seminar 3.

Factor one deals with the quality of the seminar presentation. Generally the participants felt that the quality was moderately high and that the quality improved as the course progressed. This is seen in the gradual increase in the factor means across seminars: 3.76, 3.90, and 4.22.

Factor two deals with the value of the information communicated during the seminars. That participants were unimpressed with the value of this information is indicated by the mean ratings of 3.03, 2.76, and 3.11.

Factors three and four are related in that factor three deals with the adequacy of opportunity to ask questions of the seminar guests, and factor four deals with whether or not important questions were asked by the participants. The participants felt that they had adequate opportunity to ask questions (as reflected in means of 4.04, 4.09, 4.21) but that important questions were perhaps not asked (as reflected in means of 3.07, 3.22, 3.35). Systematic records of the questions received from the students were not always kept, but some data are available to illustrate the patterns of question-asking behavior. For seminar one 75 questions were received; about half of these were answered over the air during the seminar (the remaining questions were answered either by voice or teletype VHF transmissions after the seminar broadcast). For seminar three 35 questions were received, all of which were answered during the seminar.

Factor five dealt with whether or not each seminar was broadcast at an appropriate time in the course sequence. For all three seminars, the participants' mean ratings (2.85, 2.95, 3.15) indicate that the time was not highly appropriate. This needs to be interpreted with the knowledge

that the first scheduled seminar was canceled and that the first broadcast seminar had to cover topics from the canceled seminar in addition to the scheduled seminar. However, one does wonder when the students might consider seminars to be appropriate.

During the first two seminars, filmed segments were shown that illustrated some aspects of the topics with which the seminar dealt. Factor six includes the participants' reactions to the adequacy of these filmed segments. The mean ratings for this factor indicate an unimpressed and a positive response (2.86 and 3.83).

On item seven of the IFQ, participants were asked to compare the televised seminars with seminars and class discussions from other classes. The means for the three administrations of this item are 3.40, 3.44 and 3.59, which indicate that the participants were slightly positive towards seminars in comparison with seminars and class discussions from other courses. However, one advantagous feature of the televised seminar which was commented on by several participants was the opportunity to interact with reading experts. One such comment was as follows:

> "Very good, practical and useful material from expert consultants. Emphasized available materials and their usages."

The most frequently stated negative comment was that the capacity for interaction between students and seminar guest(s) was not used enough. Some comments are listed below.

> "Not enough interaction and direct feeback and cross-questioning."
>
> "Boring. Prefer live, by far."
>
> "Last program best because more participants and more questions submitted."

As stated previously, extensive technical problems interrupted the planned sequence for the seminars; however, had all four planned seminars been broadcast, the participant reaction would likely have been more positive.

Comments by the site coordinators, from the Summative Report Form (SR), are very favorable overall and express many of the same concerns as the participants' comments. The site coordinators felt that the program content was excellent, but that there was too much redundancy and not enough time allotted for questions and answers.

> "Seminars, although generally of good content, were dull and boring. Students very often lost interest because of redundancy."
>
> "The televised seminars did not allow for many questions to be answered."
>
> "Need panel members with a greater amount of time devoted to specific questions, rather than having authorities enlarge on the materials in the telecast."
>
> "We were only able to view the last two seminars and the only suggestion is that they omit the taped portions. Teachers really enjoy just listening to Dr. Eberwein."

One site monitor commented that a better method of soliciting questions might have increased student participation during the polling sessions:

> "Keep answers short and make sure the questions are answered directly and to the point, e.g., when a question that requests only a yes or no answer is asked, the tendency has been to circumvent the question instead of giving a yes or no and then qualifications. Perhaps a better structure and method of soliciting questions needs to be developed. It is difficult to poll questions from teachers before or during a seminar because this tends to be disruptive to other questions."

The consulting faculty members were very positive in their overall ratings of the televised seminars. They were asked to rate the programs on a 5-point scale (5 - excellent to 1 - unacceptable). Their average

rating was 4.60. Since many of the consulting faculty members were unable to view most of the seminars, their comments mainly emphasized the interactive capacities of the televised seminars. Most were impressed with the fact that participants were able to interact with various experts in the field of reading. Some of their comments were:

> "I was impressed with the quality of the questions and the responses given by the seminar experts."
>
> "These were excellent--students liked the personal attention and 'immediate' reinforcement of seminars."
>
> "Need more of these."
>
> "These ratings (highest possible) reflect my discussion with the teacher-students since I was unable to attend (due to heavy teaching load). As mentioned on item one, I rate the lecture in which I participated as 5 (highest on this scale), with some modesty. I have heard that the last reading seminar was the best (from a number of people who saw it)."

Reactions to Evaluation Materials

The Summative Report Form (SR) asked both site coordinators and consulting faculty members to comment on the evaluation forms utilized in the course.

Although their comments varied, the general consensus was that there were too many forms used in the evaluation of each class session. For this reason, students soon felt that completing the evaluation forms was a tedious, boring task and tended to lose sight of the purpose of the evaluations. Some specific comments made by site coordinators follow:

> "Absolutely too many forms to fill out."
>
> "The construction of the forms was excellent, but the teachers soon got tired of doing them; there were too many forms, and participants felt that UK put more emphasis on these forms than on the subject content."

"Too much evaluation. Some resentment over evaluating each bit and morsel each day."

"Teachers recognize the need for these forms, but could do without them. Generally, their attitude has been excellent."

"The evaluation methods were easily acceptable. Even with the large volume of materials to evaluate each session, the students always responded positively and favorably."

"There was unnecessary paper wasted. Each student could be given one set of all forms at the beginning of the course which could be referred to each day. Also, a 'does not apply' choice should be a response as many of the questions did not pertain to particular programs."

"Too damn many forms. Suggest only one form per broadcast. However, I ranked these 5 and ranked 5 for content and quality (5 was high rating on SR) because they were excellent; there were too many of them to fill out every day."

"They accepted this most agreeably, since they understood that it was of value to you; the few who complained learned to 'live with it.' On the last day, they left full of enthusiasm. It was amazing to hear them talk. It was unanimous that this course was the most valuable reading course any of them had ever had. The teachers made this statement over and over to the superintendent. Because of this, the spring course at this site is full and others hoping to take it. Do hope it's basically the same."

"I doubt if they were valuable as evaluation tools; after the first week or two most participants resented them, and I did them sloppily. Many times participants would forget if #1 was positive or negative and I did not care."

The consulting faculty members were very positive in their overall ratings of the evaluation forms. They were asked to rate the forms on a 5-point scale (5 - excellent to 1 - unacceptable). Their average rating was 4.40. Their comments generally emphasized the need to reduce the number of evaluation instruments used in each class session. Too, several comments suggested that some changes be made in the organization of test instruments used. Some comments were:

"Students seemed to think there were too many forms and that they were too complicated."

"As cited earlier, the forms could have had a better system of coding for answer sheets. Suggestion: color-coded plus symbols.... ."

As consulting faculty, I did not have an opportunity to examine the evaluation forms. The forms seemed to be too extensive. Some students filled in the blanks without much thought after the second program. I question the validity of some of the data collected. Suggestion: not so many (forms) next time. Congratulations on a fine job."

Reactions to Unit Tests

At the beginning of each class session the participants were given short unit tests. These were multiple choice tests of from 12 or 13 items that sampled the content from the last week's video programs and laboratory activities. The unit tests did not affect the participants' grades. [For a discussion of the purpose and development of the unit tests see AESP Technical Report #4 (Bramble, et al, 1974, pp. 5-9)]. Rather, these tests were used as an instructional aid and as an evaluation tool to measure unit learning. The participants discussed their answers in class after they had turned in their answer sheets to the site coordinator. [For a discussion of participant performance on the unit tests see AESP Technical Report #8 (Bramble, Marion, and Ausness, 1975)].

Item 9 on the IFQ asked the participants to compare the unit tests to instructor-made tests in other graduate classes they had taken. The means for the three administration of the IFQ are 3.82, 3.59 and 3.88. From this it may be concluded that the participants were mildly positive toward the unit tests.

Item 9 on the IFQ also asked for participant comments on the unit tests. Selected comments, listed below, convey that most participants valued the tests as learning or instructional aids because they received immediate feedback on the correctness or incorrectness of their answers. However, the participants complained that the learning process stopped here, in that students were unable to obtain feedback on why an answer was wrong or right. Some of the more frequently received comments were as follows:

> "I need more feedback on the answers as sometimes I don't understand or agree with your choice."
>
> "All graduate courses seem to have ambiguous questions. This is no exception."
>
> "On many questions, we disagreed with you, but again could not question or discuss it with you!"
>
> "Nice again to have these to refer to."
>
> "Liked this type of repetition to make information stick."
>
> "At times we disagreed with answers posted; however, there was no way to confirm or dispute unresolved questions. So, nothing new learned."
>
> "The tests seemed comprehensive enough to cover all materials."
>
> "It keeps you up-to-date, I don't completely agree with the answer given as compated to my answers on the unit tests."

Generally, the site coordinator's comments reflected similar concerns and observations. This selection of comments is taken from the SR.

> "These were often a challenge and the students enjoyed discussion. Some of the items were ambiguous, making selection of a response subjective."

"Often, students disagreed with the given answers and did not receive a response when we submitted these questions."

"Quite a few teachers who disagreed with some of the answers on unit tests and seemed to have evidence to back up their arguments."

"The unit tests served as a valuable reinforcement for the program."

"Students have always responded well to the unit tests. The opportunity to check the work immediately after completion was a good reinforcement approach. A number of students questioned some answers listed; these questions were sent to UK via the collection box, but replies were never received. Students needed and should have received clarification."

It is interesting to note the final two comments made by site coordinators:

"These tests could have had more meaning to the teachers if they had counted toward their grade."

"Students found them helpful in recall of important facts. Perhaps the idea that they were not counted toward their grade made them more useful!"

The consulting faculty members were also asked on the SR to rate the unit tests. Their average rating was very positive, 4.55 on a scale from 1 to 5 (5 - excellent to 1 - unacceptable). Some comments and observations made by the consulting faculty were:

"Questions tended to be the 'answer and forget' type rather than the 'think about afterwards' type. Suggest activities related to expanding ideas in questions."

"I felt that many students (and myself also) thought the unit tests were rather easy, by and large."

"Consulting faculty did not have the opportunity to read the questions. I only had the opportunity to read the ones students disagreed with. I did feel that the items were reasonable considering the amount of time you had to develop them without field testing. The students complained (legitimately) about eight items. Eight out of 129 is an excellent record! It might help faculty to get feedback and questions from Kentucky to help students having difficulty with specific items."

Summary of Site Coordinator Comments from the Observation Log

The Observation Log (OL) contained spaces on which site coordinators could log any problems, comments, etc. observed during the class session. A synopsis of these comments is included here so that the reader can get an impression of the day-to-day problems and reactions that were recorded on the OL. Since the OL was filled out at each of the 15 sites, it must be remembered that the comments below reflect only the opinions of those who chose to write comments. The following comments are listed chronologically, by class sessions, and are divided into five categories: equipment, video content, lab materials, evaluation, and general.

Session 1 - July 11, 1974

Equipment: One site reported not receiving any television and had inoperable telephone and telegraph equipment. Two sites reported that channels 1 and 2 of four-channel audio review equipment were inoperable.

Video Content: One site reported that the initial reaction to the course was excellent.

Lab Materials: One site reported that the students felt that there was too much lab activity scheduled. Another site reported that the students "seemed unable or unwilling" to take the initiative of performing the laboratory activities without a great deal of assistance. And a third site reported that the teachers felt that the laboratory activities would be useful.

Evaluation: One site reported that the students were "overwhelmed" with the amount of paper work required of them. Another site reported that the students generally found the evaluation forms confusing.

Session 2 - July 18, 1974

Equipment: Network problems prevented broadcast from being transmitted.

Video Content: One site reported that the students felt that they could use the content to improve their reading programs in the fall.

Evaluation: Two sites reported that the students had questions concerning the correct answer of questions 6 and 11 of Unit Test 2. Another site further reported that the students were growing to dislike all evaluation forms.

General: One site reported that the students would like to have their questions answered either during the seminar or by return mail.

Session 3 - July 25, 1974

Equipment: Three sites found the audio to be poor, having a constant hum. Two sites reported to have generally poor reception in this date. Two other sites reported cross-talk in the four-channel audio review equipment.

Lab Materials: One site reported that the lab materials were acceptable in relationship to other unit activities.

Evaluation: One site found that the evaluation materials were packaged improperly. Another site reported that the class felt that there were too many forms to fill out.

General: One site requested that there should be no teletype activity during TV presentation since it interfered with hearing the program. (The teletype unit was in the classroom).

Session 4 - August 1, 1974

Equipment: One site reported that for the first program of the day the audio was off 3/4 of the time, and two sites reported that the audio was greatly distorted for program #6. Another site reported cross-talk on the four-channel audio review equipment.

General: One site reported that the pacing of the four-channel audio review questions was too slow and that the questions were too simple. Another site reported that instead of using the four-channel audio review equipment, they simply discussed the content of the four-channel script. This activity was said to be preferred by the students.

Session 5 - August 8, 1974

Equipment: One site reported that the master control for the four-channel audio review unit was still malfunctioning, that cross-talk was still prevalent, and that the encoder was not triggered by the control unit. Another site reported that the broadcast quality was excellent, while a third site reported that the sound was not clear on the programs.

Evaluation: One site reported that the evaluation procedures are becoming a chore for the students and that many students disagreed with some answers on the unit tests.

General: One site reported that the students disliked both the four-channel audio review questions and their mode of presentation.

Session 6 - August 15, 1974

Equipment: Two sites reported the technical quality of video and audio presentation to be quite poor, and one site reported static in the audio for the 2nd program of the day.

Evaluation: One site reported that the students disliked both the four-channel audio review questions and their mode of presentation.

Session 7 - August 22, 1974

Equipment: One site reported that the class enjoyed the seminar and found the seminar guests to be quite informative.

Lab Materials: One site reported that the students disliked the laboratory activity since it was similar to the assignment done in week 7.

CONCLUSIONS

The following is a summary of conclusions regarding participants' attitudes toward DPRI course activities.

- Videotaped programs in the latter half of the course (programs 8-12) were thought to be better than those in the first half of the course. Therefore, it appears that the participants were more attracted to programs that illustrated classroom practices than programs that dealt with diagnosis, information systems and classroom management.

- Program content appears to be the factor that determined whether or not the videotaped programs were preferred over the typical campus lecture.

- The immediate feedback nature of the four-channel audio review was the best liked feature of that activity.

- Overall, the audio review ratings were positive; however, it was felt by many participants that the questions were too easy and were often unrelated to the video program.

- The later laboratory activities (sessions 7 through 12) were viewed more positively than the earlier laboratory activities (sessions 1 through 6); it appears that the best TV programs are associated with the best-rated laboratory sessions.

- Laboratory activities and materials that dealt with teaching methods were more enjoyable than those that dealt with diagnostic techniques.

- Participants felt that the two information systems, Select Ed and the Texas Retrieval System, were useful as sources of information, that the procedures for use were explained adequately and that they were easy to use.

- Participants were favorable toward the use of information systems but felt that the utility of such systems could be increased by improving turnaround time on searches run.

- The on-site reference materials were felt to be complete and very useful.

- The value of the live, interactive seminars seemed to lie in the ability to interact with "experts" in the field of diagnostic and prescriptive reading.

- The participants felt that they had adequate opportunity to ask questions but that important questions were perhaps not asked. Too, it was felt that much of the material discussed during the seminars was redundant.

- The evaluation design included too many forms. Revision of the design to include fewer administrations of less forms was suggested.

In extrapolating from the foregoing conclusions, the reader should keep in mind that certain extraneous and unexpected variables, such as equipment malfunctions, influenced the evaluation data gathered for many aspects of the course. Further, although various evaluation instruments, such as the Observation Log, attempted to account for these variables by providing space for a written description or explanation of special problems, it is very difficult to ascertain either how many areas of the course were affected or the extent to which participants' and site coordinators' attitudes were affected. Too, since "hindsight" is always better than forsight, our experience in the total course development and operation has indicated several areas which could be improved upon from the standpoint of pre-planning.

In the following commentary, the authors of this report and others involved in the course reflect on problems of this nature and offer suggestions, should the course be offered again.

As stated previously, equipment malfunctions generated a great deal of frustration for both participants and site coordinators. For example, the four-channel audio review was never really functional in the designed manner so conclusions as to the usefulness of this system can be only tentative at this time. However, the need for competent equipment design and installation cannot be overly stressed.

Another problem area concerned the role of the site coordinator. It seems that many participants misunderstood the site coordinator's fairly passive role, that of monitoring course activities. Instead, many participants expected the site coordinator to serve as instructor

rather than as a facilitator. From many informal contacts with the site coordinators, it appears that they were not completely confident about their role of operating all the equipment and guiding the laboratory sessions. Although a one-week, pre-course workshop was held for the site coordinators prior to the course, it is felt by many that this was insufficient time in which to train them to be efficient coordinators of a complex course. They suggested that a more carefully designed pre-course instruction for site coordinators be planned to assist them in more effectively fulfilling their roles.

Regarding the class sessions, one recurring comment received from the participants on the IFQ and from the site coordinators on the SR was that there was too much to see and do each day. The participants often did not like the amount of work that was expected from them in terms of pre-program preparation, laboratory sessions and homework. Perhaps some of the work load could be cut so that these activities would support only the key issues of the video programs and not try to expand upon them. A recommendation made was to have more class meetings and do less at each meeting.

With regard to the videotaped programs the reader will recall that the data from the TLQ (Table 7) indicated that the four lowest-rated programs were programs 3, 5, 6 and 9. These data were compared with comments made by Paul LeVeque, producer-director of the DPRI TV programs.

It was his feeling, based on a production/technical viewpoint, that programs three (Standardized Tests), six (Prescriptive Instructional Systems), and nine (Word Recognition) contained content that was hard to,

visualize in an exciting and attention-holding manner (see Appendix A, Item A). He also felt that while program five (Miscue Analysis) contained much new and complex material, its low rating (see Table 7) was due in part to the loss of the seminar that was to follow the broadcast of program five (see Table 3). The seminar was to further explain the use of the Miscue Analysis, and the program was insufficient without the seminar.

Mr. LeVeque offered some suggestions as to why some programs were rated high. Programs two (Informal Tests), eight (Reading Readiness and Beginning Reading), ten (Vocabulary), eleven (Comprehension), and twelve (The Total Reading Program) contained practical, useful information; and, the information presented contained many classroom film segments showing Appalachian teachers at work. He felt that the teachers in the DPRI course found applied topics that were illustrated with classroom scenes to be the most interesting.

APPENDIX

APPENDIX A

Item A

DPRI Course Content and Objectives

The topics and objectives for each of the twelve programs are:

PROGRAM 1 - DPRI INTRODUCTION

I. Identify reading sub-skills

II. Identify the parts of the diagnostic-prescriptive reading instruction model

III. Realize the importance of early diagnosis and correction of reading problems

PROGRAM 2 - INFORMAL READING TESTS

I. Recognize the advantage of informal reading tests

II. Interpret the results of informal reading tests

III. Identify the sequence of activities involved in constructing an informal reading inventory

The Potter and Rae book, Informal Reading Diagnosis, will be used.

PROGRAM 3 - STANDARDIZED TESTS

I. Identify the procedures necessary for effective administration of standardized tests

II. Interpret the results of standardized tests

III. Recognize the strengths and limitations of standardized tests

The Stanford Achievement Test, Primary I and II and the Murphy-Durrell Reading Readiness Analysis will be used.

PROGRAM 4 - WORD RECOGNITION TESTS

I. Interpret the results of the Wisconsin Design for Reading Skill Development: Word Attack

II. Connect diagnosis to the instructional materials

III. Identify the the sequence of activities involved in going through a complete test-teach-test instructional cycle using the WDRSD: WA

The Wisconsin Design for Reading Skill Development: Word Attack will be used

PROGRAM 5 - MISCUE ANALYSIS

I. Identify and do the sequence of activities involved in administering the reading miscue inventory

II. Categorize reading miscues

III. Compile the results of the reading miscue inventory on coding sheet

The Reading Miscue Inventory will be used

PROGRAM 6 - PRESCRIPTIVE INSTRUCTIONAL SYSTEMS

I. Translate test results into words (descriptors) that can be used to find materials in the retrieval systems

II. Identify the sequence of steps in the process of materials selection

III. Determine which skill descriptors are most appropriate for each student

IV. Recognize the strengths and limitations of different retrieval systems

The Select Ed and the Texas Retrieval Systems will be used

PROGRAM 7 - DPRI MANAGEMENT

I. Identify several patterns of grouping

II. Assess the strengths and limitations of grouping patterns

III. Determine the most appropriate grouping pattern in a given situation

IV. Recognize reasons for using a grouping pattern in a given situation

PROGRAM 8 - READING READINESS AND BEGINNING READING

I. Identify activities used to teach reading readiness and beginning reading

II. List advantages and disadvantages of the activities

III. Determine which activity is most appropriate for a given situation

The Teaching of Reading will serve as a resource for programs 8-11

PROGRAM 9 - WORD RECOGNITION

I. Identify activities used to teach word identification

II. List advantages and disadvantages of the activities

III. Determine which activity is most appropriate for a given situation

PROGRAM 10 - VOCABULARY

I. Identify activities used to teach vocabulary

II. List advantages and disadvantages of the activities

III. Determine which activity is most appropriate for a given situation

PROGRAM 11 - COMPREHENSION

I. Identify question strategies used to teach comprehension

II. Write questions to stimulate student responses in various categories (i.e. knowledge, translation, etc.)

III. Determine the most appropriate question strategy for a given situation

PROGRAM 12 - THE TOTAL READING PROGRAM

I. Identify ways to encourage parental participation in reading programs

II. Determine ways to integrate trade and library books in diagnostic-prescriptive reading instruction

III. Recognize the strengths and limitations of DPRI

IV. Determine ways to implement diagnostic-prescriptive reading instruction in a total reading program

Item B

The Pre-Program Preparation, Laboratory (Ancillary) Activities and Follow-up Activities for each DPRI Program

PROGRAM 1 - DPRI INTRODUCTION

I. Pre-program Preparation

A. None

II. Ancillary Activities

A. Materials needed

1. Example list of problems

B. Activities

1. List problems you have in teaching reading

III. Follow-up Activities

A. None

PROGRAM 2 - INFORMAL READING TESTS

I. Pre-program Preparation for Program 2, Informal Reading Tests

A. Materials needed

1. Informal Reading Diagnosis, Potter and Rae
2. How to Judge Readability of Books, Tape Transcript
3. How to Judge Readability of Books, Student's Workbook
4. "Creating Questions for Informal Reading Inventories"
5. "Question Strategies for Teaching Reading as Reasoning"
6. Informal Reading Inventory, sample by Rizk
7. Interest Inventory
8. The Teaching of Reading, Dallman
9. Pre-program Generalization Sheet

B. Activities

1. Read Informal Reading Diagnosis
2. Read How to Judge Readability of Books, Tape Transcript
3. Read How to Judge Readability of Books, Student's Workbook
4. Read "Creating Questions for Informal Reading Inventories"
5. Read "Question Strategies for Teaching Reading as Reasoning"

6. Read the Informal Reading Inventory, sample by Rizk
7. Read the Interest Inventory
8. Optional: Read Chapters 1 and 2 in The Teaching of Reading
9. Complete Pre-program Generalization Sheet

II. Ancillary Activities

A. Materials needed

1. Informal Reading Diagnosis, Potter and Rae
2. How to Judge Readability of Books, Tape Transcript
3. How to Judge Readability of Books, Student's Workbook
4. "Creating Questions for Informal Reading Inventories"
5. "Question Strategies for Teaching Reading as Reasoning"
6. "Informal Reading Tests"
7. Informal Reading Inventory, sample by Rizk
8. Interest Inventory

B. Activities

1. Construct an Informal Reading Inventory
2. Construct an Informal Test for diagnosing a skill

III. Follow-up Activities

A. Materials needed

1. Informal Reading Inventory
2. IRI Record Sheet
3. Informal Skill Test

B. Activities

1. Administer Formal Reading Inventory to elementary student
2. Administer Informal Skill Test to elementary student

PROGRAM 3 - STANDARDIZED TESTS

I. Pre-program Preparation

A. Materials needed

1. Murphy-Durell Reading Readiness Analysis, (MDRRA) Specimen Set
2. Stanford Achievement Test Level I (SAT-I) Specimen Set
3. Stanford Achievement Test Level II (SAT-II) Specimen Set
4. Pre-program Generalization Sheet

B. Activities

1. Read the Administrator's Manual for MDRRA and the Accompanying student test booklet
2. Read the Administrator's Manual for SAT-I and II, and accompanying student test booklets
3. Read Norms Booklets for SAT-I and II
4. Complete Pre-program Generalization Sheet

II. Ancillary Activities

A. Materials needed

1. Murphy-Durrell Reading Readiness Analysis (MDRRA) Specimen Set
2. Stanford Achievement Test, Reading Tests, (SAT-I) Level I, Specimen Set
3. Stanford Achievement Test, Reading Tests, (SAT-II) Level II, Specimen Set

B. Activities

1. Administer either MDRRA or SATRT to partner
2. Complete score tables for MDRRA and SATRT I and II

III. Follow-up Activities

A. Materials needed

1. MDRRA or SAT-I or SAT-II
2. Read "Measurement Terms For Classroom Teachers"
3. Read "A Glossary of Measurement Terms"

PROGRAM 4 - WORD RECOGNITION TESTS

I. Pre-program Preparation

A. Materials needed

1. Teacher's Planning Guide; Word Attack, Wisconsin Design for Reading Skill Development
2. Test Administrators' Manuals, Levels A, B, C, D; Wisconsin Tests of Reading Skill Development
3. Test Booklets, Levels A, B, C, D; Wisconsin Tests of Reading Skill Development; Word Attack
4. Pre-program Generalization Sheet

B. Activities

1. Read the Teacher's Planning Guide; Word Attack, Wisconsin Design
2. Read the Administrator's Manuals, Levels A, B, C, D; Wisconsin Design; Word Attack
3. Read the Test Booklets, Levels A, B, C, D; Wisconsin Design; Word Attack
4. Complete Pre-program Generalization Sheet

II. Ancillary Activities

A. Materials needed

1. The Wisconsin Design for Reading Skill Development: Word Attack (WDRSD: WA), Specimen Set plus Manual
2. Skill Development Guidelines; Levels A, B, C, D

B. Activities

1. Read Guideline for appropriate level
2. Test-teach-test classroom partner using WDRSD: WA

III. Follow-up Activities

A. Materials needed

1. WDRSD: WA

B. Activities

1. Administer WDRSD: WA to elementary (K-3) student
2. Outline appropriate materials you would use to teach a skill

PROGRAM 5 - MISCUE ANALYSIS

I. Pre-program Preparation

A. Materials needed

1. Reading Miscue Inventory Manual, Goodman and Burke
2. The Teaching of Reading, Dallman
3. Pre-program Generalization Sheet

B. Activities

1. Read the Reading Miscue Inventory Manual
2. Optional: Read Chapters 3, 9A, 9B in The Teaching of Reading
3. Complete Pre-program Generalization Sheet

II. Ancillary Activities

A. Materials needed

1. The Wisconsin Design for Reading Skill Development: Word Attack (WDRSD: WA), Specimen Set plus Manual
2. Skill Development Guidelines; Levels A, B, C, D

B. Activities

1. Read Guideline for appropriate level
2. Test-teach-test classroom partner using WDRSD: WA

III. Follow-up Activities

A. Materials needed

1. WDRSD: WA

B. Activities

1. Administer WDRSD: WA to elementary (K-3) student
2. Outline appropriate materials you would use to teach a skill

PROGRAM 5 - READING MISCUE

I. Pre-program Preparation

A. Materials needed

1. Reading Miscue Inventory Manual, Goodman and Burke
2. The Teaching of Reading, Dallman
3. Pre-program Generalization Sheet

B. 1. Read the Reading Miscue Inventory Manual
2. Optional: Read Chapters 3, 9A, 9B in The Teaching of Reading
3. Complete Pre-program Generalization Sheet

II. Ancillary Activities

A. Materials needed

1. Reading Miscue Inventory Manual
2. Blank Selection Worksheet
3. Guideline Selection Worksheet
4. Retelling Outline
5. Guideline Retelling Outline
6. Blank Coding Sheet

7. Guideline Coding Sheet
8. Synopsis of coding sheet answers
9. Blank reader profile
10. Guideline reader profile

B. Activities

1. Listen to tape and mark selection worksheet
2. Listen to tape and mark retelling outline
3. Complete coding sheet
4. Complete reader profile

III. Follow-up Activities (Optional)

A. Materials needed

1. Selection Worksheet (student constructed)
2. Retelling Outline
3. Coding Sheet
4. Reader Profile

B. Activities

1. Make selection worksheet
2. Complete retelling outline for your selection
3. Administer your RMI to elementary student
4. Code and profile results

PROGRAM 6 - PRESCRIPTIVE INSTRUCTIONAL SYSTEMS

I. Pre-program Preparation

A. Materials needed

1. The Teaching of Reading, Dallman
2. Thesaurus, Select Ed
3. Thesaurus, Texas Retrieval
4. Pre-program Generalization Sheet

B. Activities

1. Read Chapter 17 in The Teaching of Reading
2. Read Thesaurus, Select Ed
3. Read Thesaurus, Texas Retrieval
4. Complete Pre-program Generalization Sheet

II. Ancillary Activities

A. Materials needed

1. Description of PMRS
2. Six case studies
3. Thesaurus-Select Ed
4. Thesaurus-Texas Retrieval System
5. Sample Synthesis Form for Wayne
6. Sample Retrieval Request Form for Wayne
7. Synthesis Forms (2)
8. Retrieval Request Forms (2)

B. Activities

1. Read Description of PMRS
2. Translate test results from two case studies into descriptors and that can be used to find materials in the retrieval systems
3. Compare your retrieval selections with those provided

III. Follow-up Activities

A. Materials needed

1. Test results for your student
2. Thesaurus-Select Ed
3. Thesaurus-Texas Retrieval System
4. Retrieval Request Forms

B. Activities

1. Translate test results for your elementary student into descriptors that can be used to find materials in the retrieval systems
2. Make out a request form like Wayne's and give to site coordinator to send to the RCC

PROGRAM 7 - DPRI MANAGEMENT

I. Pre-program Preparation

A. Materials needed

1. The Teaching of Reading, Dallman
2. Pre-program Generalization Sheet
3. Example independent activity

B. Activities

1. Read Chapter 13 in The Teaching of Reading
2. Complete Pre-program Generalization Sheet
3. Prepare an independent activity to share with class.

II. Ancillary Activities

A. Materials needed

1. Your handout of an independent activity

B. Activities

1. Discuss one of the five decision making questions with your partner
2. Discuss with the class the advantages and disadvantages of the various grouping patterns
3. Discuss with the class independent activities which can be used while you are working with a group and then exchange handouts

III. Follow-up Activities

A. Materials needed

1. Description of Sinclairville reading program
2. Example "My Grouping Pattern Problem"

B. Activities

1. Read the description of the Sinclairville reading program
2. Briefly describe the class you had this past school year and show how you grouped them for instruction. Then make suggestions on how you would change your grouping patterns if you had the same group next year.

PROGRAM 8 - READINESS AND BEGINNING INSTRUCTION

I. Pre-program Preparation

A. Materials needed

1. The Teaching of Reading, Dallman
2. Pre-program Generalization Sheet
3. Example activity for readiness and beginning reading

B. Activities

1. Read Chapters 4A and 4B in The Teaching of Reading
2. Complete Pre-program Generalization Sheet
3. Prepate handout of technique used for teaching a readiness and beginning reading activity

II. Ancillary Activities

A. Materials needed

1. Your handout of activity for teaching a readiness or beginning reading skill

B. Activities

1. The five class members for Program 8 report on their activities
2. Class members exchange their handouts

III. Follow-up Activities

A. Materials needed

1. Suggested activities by classmates
2. Example summary of readiness activity

B. Activities

1. Read the suggested activities
2. Do one of the readiness activities with your K-3 student and write brief summary of the strengths and weaknesses of the skill activity

PROGRAM 9 - WORD RECOGNITION STRATEGIES

I. Pre-program Preparation

A. Materials needed

1. The Teaching of Reading, Dallman
2. Pre-program Generalization Sheet
3. Example activity for word recognition skill

B. Activities

1. Read Chapters 5A, 5B, and 15 in The Teaching of Reading
2. Complete Pre-program Generalization Sheet
3. Prepare handout of technique used for teaching a word recognition skill

II. Ancillary Activities

A. Materials needed

1. Your handout of activity for teaching a word recognition skill

B. Activities

1. Discuss in class the advantages and disadvantages of these five approaches to word recognition: phonics, gaming, patterning, Distar, and Fernald
2. The five class members for Program 9 report on their activities
3. Class members exchange handouts

III. Follow-up Activities

A. Materials needed

1. Suggested activities by classmates
2. Suggested games by Montgomery
3. Fernald Approach summary
4. Example summary of word recognition activity

B. Activities

1. Read the suggested activities
2. Read the suggested games by Montgomery
3. Read the Fernald Approach summary
4. Do one of the word recognition activities with your K-3 student and write brief summary-reaction of the skill activity

PROGRAM 10 - VOCABULARY

I. Pre-program Preparation

A. Materials needed

1. "Activities for Increasing Hearing and Speaking Vocabularies," Wise
2. "Stimulate Reading With a Dictionary," Miller
3. "Vocabulary Development in The Primary Grades," Bougere
4. Pre-program Generalization Sheet
5. Example activity for vocabulary skill

B. Activities

1. Read "Activities for Increasing Hearing and Speaking Vocabularies"
2. Read "Stimulate Reading With a Dictionary"
3. Read "Vocabulary Development in The Primary Grades"
4. Complete Pre-program Generalization Sheet
5. Prepare handout of techniques used for teaching vocabulary

II. Ancillary Activities

A. Materials needed

1. Your handout of an activity for teaching vocabulary

B. Activities

1. The five class members for Program 10 report on their activities
2. Class members exchange their handouts

III. Follow-up Activities

A. Materials needed

1. Suggested activities by classmates
2. Example summary of vocabulary activity

B. Activities

1. Read the suggested activities
2. Do one of the vocabulary activities with your K-3 student and write brief summary

PROGRAM 11 - COMPREHENSION

I. Pre-program Preparation

A. Materials needed

1. "Question Strategies for Teaching Reading As Reasoning" Eberwein (See Program 2, Ancillary Materials)
2. The Teaching of Reading, Dallman
3. Pre-program Generalization Sheet
4. Example activity for comprehension skill

B. Activities

1. Reread "Question Strategies for Teaching Reading As Reasoning". Choose short passage and develop comprehension questions.
2. Read Chapters 6A and 6B in The Teaching of Reading
3. Complete Pre-program Generalization Sheet
4. Prepare handout of technique used for teaching a comprehension skill

II. Ancillary Activities

A. Materials needed

1. Your comprehension passage and questions
2. Your handout of an activity for teaching comprehension

B. Activities

1. Read partner's comprehension passage and questions and write brief critique of the questions
2. The five class members for Program report on their activity
3. Class members exchange their handouts

III. Follow-up Activities

A. Materials needed

1. Suggested activities by classmates
2. Summary of activity for comprehension

B. Activities

1. Read the suggested activities
2. Do one of the comprehension activities with your K-3 student and write a brief summary-reaction of a skill activity

PROGRAM 12 - THE TOTAL READING PROGRAM

I. Pre-program Preparation

A. Materials needed

1. The Teaching of Reading, Dallman
2. "Parent Assists to the School Reading Program"
3. Pre-program Generalization Sheet

B. Activities

1. Read Chapters 16 and 17 in The Teaching of Reading
2. Read "Parent Assists to the School Reading Program"
3. Complete Pre-program Generalization Sheet

II. Ancillary Activities

A. Materials needed

1. How I Would Change My Reading Program, example

B. Activities

1. Write a short report describing your reading program last year, and alternatives for teaching reading this year.

III. Follow-up Activities

A. None

APPENDIX B

Appendix B contains tables of item means for all of the instruments reported on in the text. In each table, individual items and a paraphrasing of the item wordings are included. On the actual instruments some of the items were phrased negatively. In the tables, the phrasing of the items has been changed and the means have been reversed to allow for the correct interpretation of the ratings. In the columns of these tables are the DPRI programs. The item means are in the body of the tables. The means were obtained by averaging over the number of individuals who responded to each item. For each table, except Tables C and E, statistical tests were run to determine which program means for each item were significantly higher or lower than the other program means. For Tables A and D contrasts were computed that compared one mean against the combined mean for the remaining means on that item. For Table B, t-tests on successive pairs for each item were run. For Table F, Tukey - HSD tests on successive pairs of means were run for each item.

TABLE A

MEAN RATINGS ON TLQ: DPRI COURSE

Item	Pretaped Program												Overall Item Mean
	1	2	3	4	5	6	7	8	9	10	11	12	
1. Satisfactory TV viewing condition	3.78	3.81	3.96	3.87	3.66	3.58	3.68	4.17	4.38*	4.00	3.93	4.28*	3.91
2. No difficulty seeing items on TV	4.13	4.21	4.23	4.09	3.96*	4.05	4.17	4.70*	4.66*	4.41	4.33	4.69*	4.29
3. Instructor spoke loud enough	3.95	4.08	3.84	3.70*	3.73*	3.71*	4.27	4.68*	4.65*	4.55*	4.46*	4.56*	4.18
4. No difficulty seeing the TV	4.25	4.10	4.37	4.42	4.28	4.13	4.23	4.65*	4.69*	4.44	4.44	4.73*	4.39
5. Program held my attention	4.05	3.93	3.86	3.84	3.91	3.66*	4.23	4.31	4.15	4.28	4.21	4.29	4.06
6. Material to be covered was identified	4.16	4.16	4.52	4.57	4.38	4.10*	4.46	4.53	4.62	4.58	4.55	4.55	4.43
7. Adequate transition between ideas	4.06	4.12	4.19	4.37	4.18	4.02*	4.45	4.47	4.53*	4.55*	4.45	4.48	4.32
8. Learned a great deal from program	3.83	4.04	3.85	4.32	3.96	3.64*	4.18	4.15	4.31*	4.29	4.23	4.19	4.08
9. Graphics helped understanding	4.05	3.95	3.92	4.22	4.12	3.86	4.11	4.05	4.12	4.41*	4.32	4.29	4.13
10. Content well organized	4.36	4.29	4.44	4.52	4.44	4.18*	4.45	4.55	4.53	4.63*	4.55	4.50	4.45
11. Materials were related to understandable examples	4.32	4.31	4.59*	4.62*	4.06*	4.11*	4.34	4.50	4.54	4.61*	4.50	4.36	4.38
12. No digression to unimportant details	4.57	4.52	4.38	4.38	4.41	4.19	4.32	4.54	4.45	4.75*	4.45	4.67*	4.47
13. Presentation not too complex	4.50	4.05	4.33	4.48	3.88*	4.04*	4.22	4.46	4.46	4.65*	4.40	4.66*	4.32
14. Presentation not too simplified	3.93	4.09	3.88	4.10	4.12	4.04	4.20	4.18	4.23	4.34	4.29	4.33	4.15
15. Instructor showed enthusiasm	4.33	4.32	4.32	4.35	4.19	4.13	4.38	4.35	4.41	4.46	4.45	4.38	4.34
16. Usefulness of TV lecture	4.21	4.42	4.36	4.65*	3.93*	4.01*	4.44	4.24	4.48	4.53	4.46	4.39	4.32
17. Perceived correctness of TV lecture	4.47	4.46	4.65	4.74*	4.53	4.39	4.62	4.56	4.69	4.68	4.67	4.64	4.59

TABLE A -- CONTINUED

Item	Pretaped Program												Overall Item Mean
	1	2	3	4	5	6	7	8	9	10	11	12	
18. Pacing of subject matter	4.27	4.24	4.20	4.50	3.77*	4.17	4.46	4.45	4.52	4.54	4.44	4.45	4.31
19. Instructor spoke clearly	4.13	4.17	3.93	3.78*	3.82*	3.83*	4.34	4.45	4.56*	4.56*	4.52*	4.54*	4.22
20. Material was not too difficult	4.48	4.35	4.42	4.40	3.26*	4.05*	4.41	4.54	4.30	4.67*	4.42	4.60*	4.29
21. Material was not too simple	3.99	4.20	4.18	4.26	4.25	3.98	4.10	4.15	4.34	4.42	4.46*	4.45	4.24
22. Instructor did not speak in a monotone	4.24	4.04	3.80	3.78	3.97	3.76	4.10	4.05	4.15	4.19	4.08	4.25	4.24
23. Instructor did not speak in condescending manner	3.72	3.72	3.61	3.67	3.82	3.64	3.83	4.05	4.00	4.21*	3.99	4.06	3.87
24. Picture was not distorted	3.98	4.10	4.07	3.93	3.74*	4.00	4.29	4.38	4.30	4.13	4.31	4.36	4.13
25. Program did not cover too much material	4.37*	3.99	4.01	4.23	2.92*	3.71*	4.00	4.41*	4.19	4.50*	4.08	4.27	3.99
26. Like to use materials presented	4.06	4.33	4.40	4.60*	3.65*	4.19	4.37	4.28	4.35	4.54*	4.44	4.44	4.27
27. Subject matter fundamental to the course	4.37	4.55	4.57	4.75*	4.29*	4.41	4.54	4.58	4.66	4.70	4.60	4.60	4.53
Program Mean	4.17	4.17	4.18	4.26	3.97	3.98	4.27	4.39	4.42	4.30	4.37	4.44	
Number of Subjects	115	117	94	88	183	118	120	111	114	111	177	107	

*The mean is significantly different (.005 level) from the average of all other means for the item (the overall α level is .05)

Note: 5-point Likert scale 1 = strongly disagree
5 = strongly agree

TABLE B

ITEM MEANS AND STANDARD DEVIATIONS FOR IFQ: DRPI COURSE

Item		Program Numbers		
		1 - 5 & Sem 1	6 - 9 & Sem 2	10 - 12 & Sem 3
1. Pre-Program preparation compared to work assigned in other graduate classes	Mean	3.72	3.58	3.79
	s.d.	.86	.92	.96
	N	184	233	252
2. TV Program compared to a graduate lecture	Mean	3.47*	3.86	3.97*
	s.d.	1.10	.91	.95
	N	158	233	252
3. Four-Channel Audio compared to class quizzes followed by a discussion of the answers	Mean	3.60	3.57	3.53
	s.d.	1.12	1.19	1.23
	N	143	233	252
4. Laboratory activities compared to laboratory activities in other graduate classes	Mean	3.81	3.70	3.80
	s.d.	.89	.89	.97
	N	181	233	252
5. On-site reference materials compared to materials placed on reserve by other graduate instructors	Mean	4.10	4.00	4.08
	s.d.	.94	.90	.90
	N	181	233	252
6. Retrieval systems materials compared to materials used to help students	Mean	3.81	3.91	3.75
	s.d.	.92	.95	1.23
	N	142	191	222
7. Televised interactive seminars compared to graduate seminars and class disucssions	Mean	3.40	3.44	3.59
	s.d.	1.05	1.02	1.10
	N	113	198	222
8. Homework assignments compared to other graduate classes	Mean	3.61	3.58	3.76
	s.d.	.99	.99	1.11
	N	165	192	222
9. Unit tests compared to instructor made tests in other graduate classes	Mean	3.82	3.59	3.88
	s.d.	.81	.94	.93
	N	165	193	222

*t-test between these two means was 1.57, this is significant at .10 level.

Note: 5-point Likert scale 1 = unacceptable -- 5 = outstanding

TABLE C

MEAN RATINGS ON UFCA: DPRI COURSE

Item	Pretaped Program											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Volume was satisfactory	Four-Channel Audio review equipment either not installed or operating at an intermittent level.*					4.20	4.39	4.50	4.56	4.58	4.29	4.66
2. Voice quality was undistorted						4.57	4.14	3.97	4.06	4.26	3.88	4.37
3. Heard only one answer at a time						3.03	3.31	3.47	3.62	4.45	4.53	4.37
4. Sufficient time to put on headset						4.40	4.44	4.75	4.58	4.76	4.67	4.89
5. Sufficient time to select answer						4.46	4.49	4.56	4.54	4.64	4.77	4.71
6. Answer not cut off						4.22	4.46	4.60	4.70	4.75	4.68	4.82
7. Received answer selected						3.83	4.24	4.60	4.60	4.65	4.71	4.80
8. Equipment not hard to use						4.28	4.17	4.70	4.62	4.65	4.56	4.58
9. Enjoyed using 4-channel equipment						3.56	3.53	3.98	3.95	4.06	3.78	4.03
10. Speaker did not speak too fast						4.13	4.23	4.71	4.61	4.71	4.65	4.70
11. Speaker spoke clearly						4.05	4.27	4.61	4.45	4.67	4.65	4.70
12. Content was relevant to unit topic	4.19	4.36	4.31	4.62	4.63	4.17	4.37	4.70	4.60	4.55	4.57	4.61
13. Content helped me understand video	3.80	4.11	4.13	4.32	4.42	3.94	3.99	4.12	4.28	4.05	4.19	4.08
14. Content helped me understand materials presented in video	3.64	4.03	4.08	4.38	4.12	3.83	3.91	3.98	4.08	3.97	4.22	4.01
15. Explanations to question were clear	4.11	4.06	4.37	4.72	4.34	4.16	4.27	4.51	4.57	4.53	4.72	4.52
16. Explanations were thorough	4.00	4.29	4.19	4.73	4.39	4.16	4.35	4.52	4.56	4.60	4.70	4.52
17. Explanations were interesting	4.01	4.21	4.21	4.50	4.35	4.02	4.13	4.31	4.34	4.26	4.23	4.20
Number of Subjects	72	70	64	60	68	102	103	100	99	98	66	105

* Students read scripts of audio review if equipment was not operational, thus they could always rate items 12-17 that dealt with audio review content.

Note: 5-point Likert scale 1 = strongly disagree -- 5 = strongly agree

TABLE D

MEAN RATINGS ON LAQ: DPRI COURSE

Item	Laboratory Activity												Overall Item Mean
	1	2	3	4	5	6	7	8	9	10	11	12	
1. The video provided preparation for the lab activities	3.29	3.25	2.36*	2.53*	3.05*	3.67	3.90*	4.17*	4.02*	4.09*	3.84	4.02*	3.53
2. Lab activities instructions were clear	3.52*	3.45*	3.80	3.73	3.56*	3.61	3.76	4.51*	4.33*	4.31*	4.11	4.50*	3.93
3. Lab activity content will be useful	4.31	4.24	4.28	4.37	3.47*	4.05	4.10	4.54*	4.54	4.43	4.44	4.22	4.16
4. Lab activities of more practical use than video lesson	3.81*	3.59	3.92*	3.92*	3.20	3.16	3.09	3.27	3.18	3.26	3.11	2.75*	3.29
5. Student interaction was helpful	4.38	4.16	4.33	4.35	3.86*	4.19	4.27	4.48*	4.44	4.38	4.27	4.12	4.23
6. Site coordinator was helpful during lab activities	4.11	3.85*	4.10	4.11	4.16	3.97	4.10	4.42*	4.42*	4.47*	4.30	4.36	4.20
7. Site coordinator gave adequate directions	3.99	3.70	4.10*	4.19	4.13	3.94	4.01	4.43*	4.43*	4.39	4.26	4.47*	4.18
8. The lab was valuable in that it gave hands-on experience	4.15	4.13	4.01	4.00	4.03	4.10	3.94	4.13	3.88	4.08	4.10	3.78	4.01
9. The lab lets you see the practical applications of the materials	4.17	4.20	4.03	4.02	3.99	4.09	4.08	4.29	4.24	4.31	4.29	4.06	4.12
10. I successfully completed the lab	3.97	3.81	4.22	4.09	2.86*	4.01	3.93	4.47*	4.41*	4.33	4.33	4.47*	3.99
11. There was time to finish the lab activities	3.94	3.73	4.00	4.04	2.76*	3.96	4.06	4.40*	4.38*	4.30	4.32	4.39*	3.93
12. The lab session was too short	3.62	3.30	3.32	2.91*	3.36	3.48	3.36	3.50	3.42	3.37	3.45	3.79*	3.43
13. The lab materials were logically organized	3.91	3.61*	4.06	3.92	3.73*	3.88	3.85	4.22	4.25*	4.25	4.14	4.20*	3.98
14. Too little material was included in the lab	3.25	2.99*	3.18	3.06	2.53*	3.24	3.12	3.76*	3.69*	3.41	3.79*	3.85	3.28
15. Adequate explanation came with the lab activities	3.61*	3.49*	3.94	3.98	3.61*	3.54*	3.69	4.21*	4.29*	4.27*	4.07	4.35*	3.91
16. The purpose of the lab activities was clear	3.90	3.76*	4.18	4.19	3.80*	3.96	3.85	4.35*	4.32	4.13	4.27	4.36*	4.08
17. I would like to use the lab content in my class	4.38	4.37	4.47	4.49	3.33*	4.26	4.19	4.46	4.39	4.32	4.42	4.19	4.18
18. The classroom facilities were adequate	3.61	3.46*	3.61	3.66	3.63	3.75	3.91	4.18*	3.90	3.91	4.01	4.09*	3.81
19. It was easy to get access to required materials	3.59*	3.61*	4.17	4.21	3.95	3.79	3.99	4.01	3.95	3.97	4.00	4.24*	3.97
20. The lab activities were interesting	4.14	4.14	4.08	4.07	3.71*	4.01	4.11	4.39*	4.30	4.23	4.27	4.08	4.09
21. The lab helped me understand the video better	4.05	3.98	3.56*	3.59	3.81	4.07	3.98	4.10	3.98	4.10	4.14	3.93	3.94
22. The lab was more enjoyable than the video	3.42	3.29	3.78*	3.65*	3.12	3.07	2.98	3.29	3.17	3.06	3.07	2.71*	3.16
Program Mean	3.87	3.73	3.89	3.87	3.53	3.81	3.83	4.16	4.08	4.06	4.05	4.04	
Number of Subjects	136	141	115	113	262	116	124	118	125	88	73	247	

*The mean is significantly different (.005 level) from the average of all other means for the item (the overall α level is .05)

Note: 5-point Likert scale 1 = strongly disagree -- 5 = strongly agree

TABLE E

MEAN RATINGS ON ISUSQ: DPRI COURSE
(N=236)

Item	Mean
1. The Select-Ed training package adequately explained the use of this information system.	4.11
2. The Texas Computer Retrieval System training package adequately explained the use of this information system.	3.90
3. I feel that the information request form for the Select-Ed information was clear in its format.	4.11
4. I feel that the information request form for the Texas Computer Retrieval System information was clear in its format.	3.87
5. I feel that it did not take too long to receive information from the Select-Ed system.	3.09
6. I feel that it did not take too long to receive information from the Texas Computer Retrieval System.	3.01
7. The Select-Ed information search provided me with the information I wanted.	3.35
8. The Texas Computer Retrieval System information search provided me with the information I wanted.	3.30
9. The Select-Ed information system gave me more information than I expected.	2.97
10. The Texas Computer Retrieval System information system gave me more information than I expected.	3.05
11. The Select-Ed information system was easy to use.	3.80
12. The Texas Computer Retrieval System information system was easy to use.	3.57
13. The information received from the Select-Ed information system was easy to interpret.	3.34
14. The information received from the Texas Computer Retrieval System information system was easy to interpret.	3.28

TABLE E -- CONTINUED

Item	Mean
15. The Select-Ed information system provided me with useful information.	3.44
16. The Texas Computer Retrieval System provided me with useful information.	3.36
17. The Select-Ed information system is well worth the time and effort it took to use it.	3.51
18. The Texas Computer Retrieval System information system is well worth the time and effort it took to use it.	3.45
19. I received conflicting information from the different information systems.	2.72
20. If the Select-Ed information system were available to me, in my school system, I would use it.	4.35
21. If the Texas Computer Retrieval System information system were available to me, in my school system, I would use it.	4.16
22. I feel that the Select-Ed information system is extremely beneficial to me as a teacher.	4.07
23. I feel that the Texas Computer Retrieval System information system is extremely beneficial to me as a teacher.	3.86
24. I would recommend the Select-Ed information system to my fellow teachers.	4.13
25. I would recommend the Texas Computer Retrieval System information system to my fellow teachers.	3.91
Mean for Select-Ed	3.69
Mean for Texas Computer Retrieval System	3.50

Note: 5-point Likert scale 1 = strongly disagree -- 5 strongly agree

TABLE F

MEAN RATINGS ON SQ: DPRI COURSE

Item	1	2	3	Overall Item Mean
1. Pretaped films valuable supplement to course material.	2,3 3.41	1 3.83	*	3.62
2. Seminar presenters did provide adequate question responses.	2 3.63	2 3.70	1,2 4.14	3.83
3. Questions sent in were valuable in highlighting issues.	4.01	3 3.89	2 4.21	4.04
4. Many important questions on topic were raised.	3 2.85	2.95	1 3.15	2.99
5. Sufficient opportunity to contribute questions.	4.30	4.44	4.47	4.41
6. Adequate time allowed for preparation and transmission of questions.	2,3 4.11	1 4.40	1 4.37	4.30
7. Seminar discussion interesting.	3 3.88	3 3.90	1,2 4.27	4.02
8. Seminar presentation was well organized.	3 4.07	3 4.18	1,2 4.43	4.23
9. Seminar discussants expressed themselves clearly.	3 4.04	3 3.95	1,2 4.37	4.13
10. Presenters expert in content areas.	2 4.47	1,3 4.15	2 4.50	4.38
11. Seminar helped to better understand course.	2,3 3.52	1 3.80	1 4.04	3.80
12. Seminar compares favorably to on-site seminar.	2.96	2.95	2.96	2.96
13. Got more out of seminar than pretaped lessons.	2.59	2.42	2.44	2.48
14. New material was introduced in the seminar.	2.98	2.10	3.29	3.13

TABLE F -- CONTINUED

Item	1	2	3	Overall Item Mean
15. Opportunity to generate questions most valuable aspect of seminar.	3.73	3.63	3.79	3.72
16. Time for seminar not too short.	3 3.70	3.88	1 3.99	3.86
17. This was a good time in course sequence for seminar.	3.86	3.83	4.08	3.93
18. Wish more of televised lessons were seminars.	2.84	2.63	2.73	2.73
19. Seminar presenters were aware of actual classroom and community problems.	3 3.63	3 3.73	1,2 4.09	3.82
20. Did have a good grasp of new material presented in this seminar.	2,3 2.82	1 3.76	1 3.94	3.53
21. Film sections of seminar better than discussion sections.	2.72	2.61	*	2.66
Number of subjects	194	211	219	

Superscripts associated with a given seminar mean indicate the other seminar means that differ significantly ($p < .05$) by Tukey - HSD test.

*No pretaped segments used in seminar 3.

Note: 5-point Likert scale 1 = strongly disagree -- 5 = strongly agree.

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